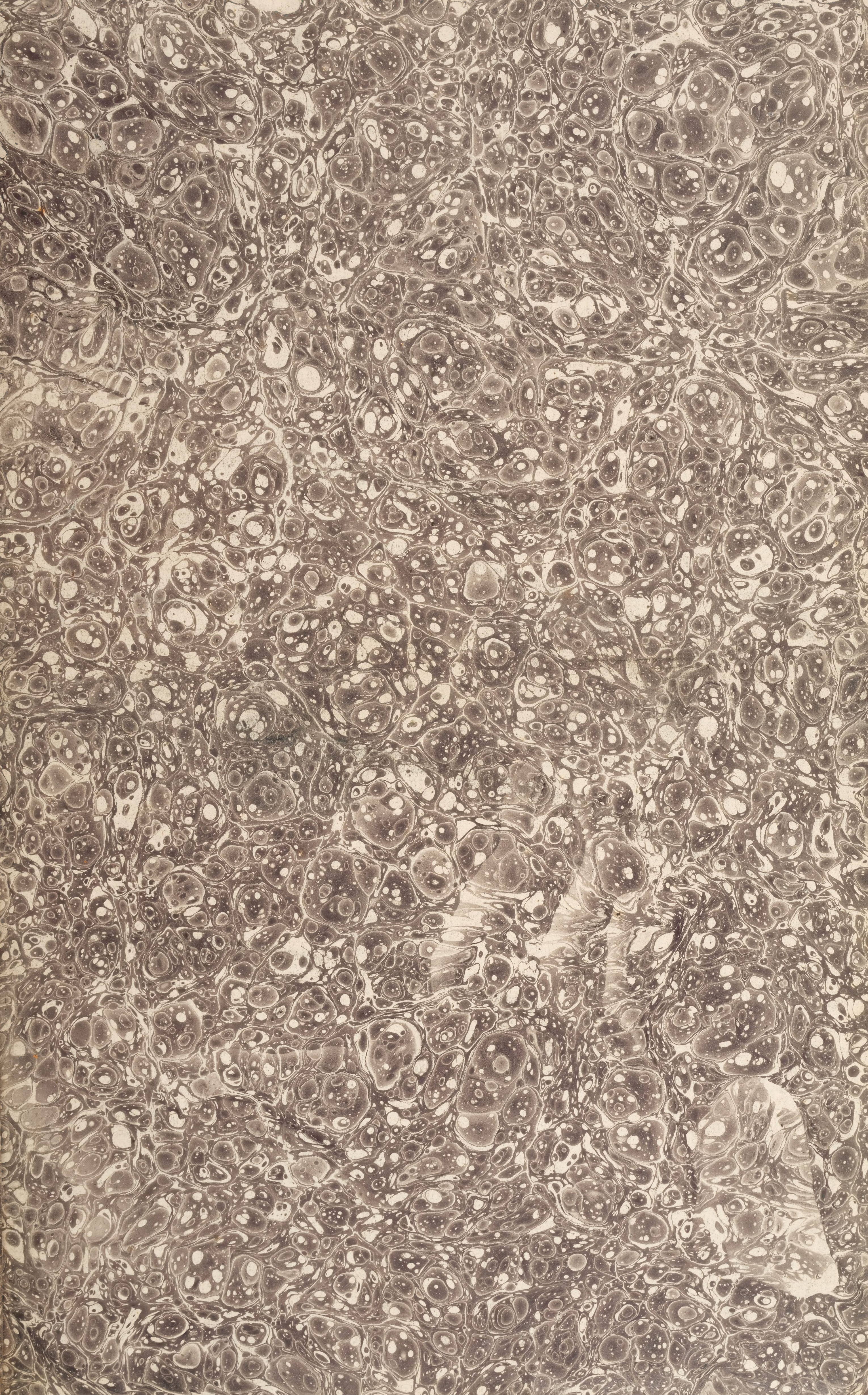






Abel Smith,

WOODHALL PARK.



THE
VEGETABLE SYSTEM.

O R,
The INTERNAL STRUCTURE
AND
The LIFE of PLANTS;

Their PARTS, and NOURISHMENT, Explained;

THEIR
CLASSES, ORDERS, GENERA, and SPECIES,
Ascertained, and Described;

In a METHOD altogether NEW:

COMPREHENDING
AN ARTIFICIAL INDEX,
AND
A NATURAL SYSTEM.

With FIGURES of all the PLANTS; Designed and Engraved by the AUTHOR.

The Whole from NATURE only.

By JOHN HILL, M.D.

VOL. VI.
Containing all the UMBELLIFEROUS PLANTS.

L O N D O N:

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M.DCC.LXXII.

THE VEGETABLE SYSTEM.

1

HERBS.

SERIES the THIRD.

With many Flowers ranged in a spreading Head, placed on Footstalks rising from ONE POINT ; and subdivided from ONE POINT again.

Of this SERIES there is but one CLASS.

THE Plants forming this are called, from the disposition of their Flowers, Umbelliferous; or Umbellated; or more familiarly, in English, UMBRELLA'D PLANTS.

Character of the Class.

Plants with many perfect Flowers, placed upon separate Footstalks rising from one point, and these on general Footstalks rising also from one point at the summit of the Stalk, or Branches; each Flower being perfect, having its own Cup; and the general head being rounded, loose, and of the form of an Umbrella.

CHAP. I.

Of the true Characters of Umbrella'd Plants; and their Place in a Natural Method.

THE umbrella'd Plants rise in the Scale of Nature, by one step above the Aggregates, and will hold the next place to them in the Natural, as well as in this Artificial System.

AN Aggregate has many Footstalks rising from one point at the head of the Stalk, or Branches; and each of these supports a single Flower: if at the Crown of such Footstalk there rise several new Footstalks instead of a single Flower, the Plant is an umbrella'd one. In the Aggregates there is a fleshy Swelling, or Placenta, at the Crown of the Stalk, whence the Footstalks of the Flowers rise: in the Umbrellas there is none; the Placenta seems in these to have run up into Footstalks, and to compose the primary Spokes of the Umbrell.

EACH Flower in the Aggregates has its separate Cup; and so has each in the Umbrellas.

IN the Aggregates there is always a general Cup at the head of the Stalk; but in the Umbrellas, Nature wantons in this article. The Mantle of the Umbrellas indeed answers to this general Cup of the Aggregates; but in some it is two-fold, there being one larger at the head of the Stalk, and smaller ones at the summits of the general Footstalks: in others it is deficient entirely. In many also it is apt to fall off, wholly, or in part, soon after the Umbrell expands; so that it must always be sought in the new opening Head.

THESE Cups, or Mantles, when present, are according to their situation, or place upon the head, distinguished by two names, GENERAL and PARTIAL: from the before-established names, of the parts whereon they stand. It is the usual language of Botany, to call the lower part of the Umbrella, which consists of the Footstalks rising immediately from the Stalk of the Plant, the GENERAL UMBRELL; and that extream part which consists of a second Order of Footstalks arising from the heads of these, the PARTIAL UMBRELL; hence the Mantle which furrounds the Footstalks of the first Order, is called the GENERAL MANTLE; and that which furrounds those of the second Order, is called the PARTIAL MANTLE, or Mantle of the Partial Umbrella. In all Umbrells the central spokes are erect, and short; and those at the sides are longer, and oblique.

LET the young Botanist be accurate in his distinction of the umbrella'd Plant: It is only perfect when there is a second rise of Footstalks from one point: if there be no second Order of them, the Plant is an Aggregate; if the secondary ones rise scatteredly, it is a cymatious, not umbrella'd Plant.

B

IN

IN all umbrella'd Plants the Cup is very small ; in many it is no more than a fungous, fleshy rim, placed immediately under the Flower, and receiving and defending the bases of the Petals : Some have, from its fleshy substance, and often slight divisions, considered it as a Placenta, not a Cup : this would be denying separate Cups to the Flowers of the umbrella'd Plants ; and would lead to more confusion than at first appears : but Nature disallows it. This part, though in many fleshy, and very slightly divided, is in others leafy, thin, and deeply cut into segments : these segments are always five, and there is in every umbrella'd Plant some mark of such a division.

IN all umbrella'd Plants the Leaves are placed alternately upon the Stalks ; the Flower in all consists of five Petals, and has five Filaments and a split style ; and there always follow two Seeds joined at their summit. These characters are constant and certain ; but the Flowers vary among the different kinds in their structure, as much at least as the Cup in its divisions ; and often on the different parts of the same head : they have, however, enough that is permanent, to shew that Nature forms the arrangement which is so obviously traced. The Petals are always five, but in some these are equal, and in others one or two are much larger than the rest : this gives the distinction of what we call regular and irregular Flowers in this Class. There is also a correspondence of parts which I have found to be universal, and without exception, between this structure of the Flowers, and the condition of the Plant, with respect of Mantles : There are some Orders of the umbrella'd kinds, which have a general and a partial Mantle ; others which want the general, and have the partial ; and some which have neither one nor the other : And it is an universal Law of Nature, with respect of these which have no Mantle, that they have never any irregular Flowers ; though among all the other Classes and Orders, such are common. A great deal may be deduced from this ; but here is not the place.

CHAP. II.

Of the Subdivisions of the Umbrella'd Class.

THAT the Student may entertain a just and a distinct idea of an Umbrell, and its Parts, they are laid before the eye, together and separate, in Plate 1. Fig. 1, 2, 3, 4, 5.

FIG. 1. shews a compleat and perfect Umbrell, with all its Parts, in their natural Position. *a a* are the primary Spokes or Rays, forming the great, or general Umbrell, and rising from the Crown of the Stalk *e*. *b b*, the Rays, or Spokes, forming the upper or partial Umbrell, rising from the Crowns of the preceding. *c c* are the Films composing the general Mantle, and *d* the Films composing the partial Mantle.

FIG. 2. shews one Spoke of the primary kind *a*, with a partial Umbrell, and its partial Mantle upon it, *b*.

FIG. 3. represents one Flower from the partial Umbrell, on its proper Footstalk, with the Rudiments of the pair of Seeds under it.

FIG. 4. one pair of Seeds, as they always follow each Flower.

FIG. 5. a Mantle rising from the Crown or Head of the Stalk.

According to the nature, form, and general or partial presence or deficiency of this Mantle, the vast Class of umbrella'd Plants may be arranged into *Tribes, Families, Orders*, and *Genera*, distinct, and easy to be known.

THE first division of the umbrella'd Plants is, from the nature of the Mantle, into Two Tribes.

UMBRELLA'D PLANTS.

TRIBE I.

Those which have the Mantle LEAFY, or formed merely of degraded Leaves.

Plate 1. Fig. 6.

TRIBE



The two Tribes of Umbrellad Plants.



The three Families of Umbrellad Plants.



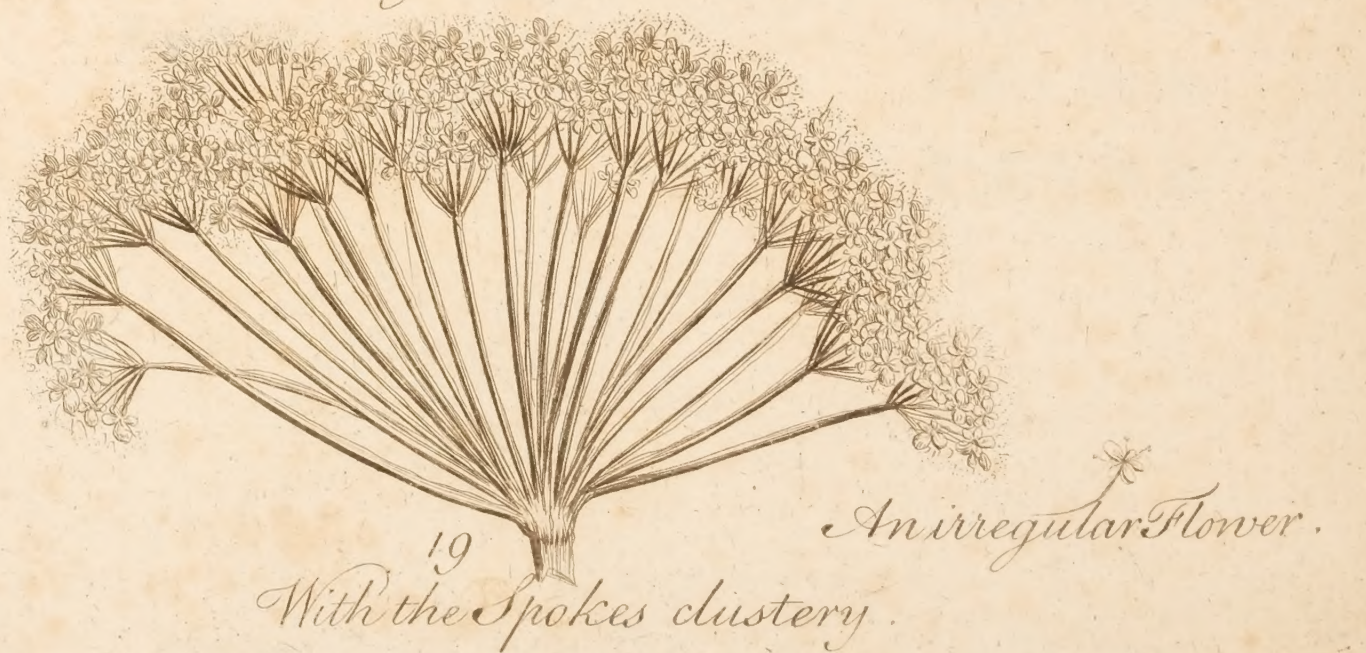
The four Orders of the first Family of Umbrellas.



The three Orders of the second Family.



The two Orders of the third Family.



T R I B E II.

Those which have the Mantle FILMY, or composed only of simple Films.

Fig. 7.

IN the first of these Tribes the objects are few, and they will neither require, nor admit of any farther Subdivisions, except that into Genera.

THE second comprehends the vast multitude of the umbrella'd Plants; and these from the double or simple prefence, or entire or partial deficiency of the Mantle, are to be subdivided into three distinct Families.

U M B R E L L A ' D P L A N T S.

T R I B E II.

Those which have the Mantle composed of Films.

F A M I L Y the F I R S T.

Those which have both a general, and a partial Mantle.

Fig. 8.

F A M I L Y the S E C O N D.

Those which have no general Mantles, but only partial ones.

Fig. 9.

F A M I L Y the T H I R D.

Those which have no Mantle, neither general nor partial.

Fig. 10.

U M B R E L L A S, T R I B E II. F A M I L Y I.

Having general and partial Mantles.

O R D E R I.

With the general Mantle formed only of one Film.

Fig. 11.

O R D E R II.

With the general Mantle composed of four Films.

Fig. 12.

O R D E R III.

With the general Mantle composed of five Films.

Fig. 13.

O R D E R IV.

With the general Mantle composed of many Films.

Fig. 14.

U M B R E L L A S, T R I B E II. F A M I L Y II.

Having only partial Mantles.

O R D E R I.

With the partial Mantle composed of three Films.

Fig. 15.

O R D E R II.

With the partial Mantle composed of five Films.

Fig. 16.

O R D E R III.

With the partial Mantle composed of many Films.

Fig. 17.

U M B R E L L A S, T R I B E II. F A M I L Y III.

Having neither general nor partial Mantle.

O R D E R I.

With the general Spokes free and open.

Fig. 18.

O R D E R II.

With the general Spokes thick set and clustery.

Fig. 19.

IN the first and second Families, where there are both general and partial Mantles, we regard only the parts of the general one; where there are only partial Mantles, we look up to them as general, and count their parts.

IN the third Family, the primary Spokes of the Plants of the first Order are always less in number than ten; those of the second Order, ten or more.

H E R B S.

HERBS.

SERIES the THIRD.

With many Flowers ranged in a spreading head, placed on Footstalks rising from one Point, and subdivided from one Point again.

Of these there is but one CLASS, the sixth in our Method, containing

The UMBRELLA'D PLANTS.

UMBRELLAS.

TRIBE I.

Having the Mantle leafy.

GENUS I.

BISHOPSWOOD.

AMMI.

Character of the Genus.

The general Umbrell is lightly convex; the partial Umbrell flat, and cluftery.

THE general Mantle has long winged Leaves; the partial is composed of short, simple Films: the Flowers have five Petals; those in the centre of the partial Umbrells are uniform, or have these all of equal size; those at the verge are irregular, two Petals being larger than the other three: the Seeds are oval; flat and smooth on one side, and convex and striated on the other.

Plate 2. *o a b c d e f.*

1. VARIOUS LEAVED BISHOPSWOOD.

Plate 2. Fig. 1.

Character of the Species.

Ammi majus.

The lower Leaves are winged; the Leaflets lanced, and serrated; the upper ones are cut into a multitude of narrow segments.

Fig. 1. *a b c.*

THIS is an Annual, native of the South of France, and other warm parts of Europe; a Plant of two feet and a half high, flowering in June. The Leaves are of a bright and fresh grass green: the Stalk is thick ribbed, and jointed: the Flowers are white; and the Seeds of a deep brown.

THE Leaves of this Plant sometimes grow curled like Parsley, and they are then fine to the bottom.

2. BLUE BISHOPSWOOD.

Plate 2. Fig. 2.

Character of the Species.

Ammi glaucifolium.

The Leaves are doubly winged; and the Leaflets are lanced to the top.

Fig. 2. *a b.*

THIS is a Perennial, native of the barren hills of France; and flowers in July. The Stalks are ribbed, and two feet high: the Leaves are of a blue green: the Flowers are white; and the Seeds of a dusky brown.



Various leafd Bishops-weed

Blue Bishops-weed



GENUS II.

CARROT.

Character of the Genus.

The general Umbrell is hollowed, the partial Umbrell clustered, and lightly hollowed. The general Mantle is composed of deeply pinnatifid Leaves, the partial of short Leaves, also lightly cut. The Flowers have each five Petals; in the central ones these are uniform, in those of the verge slightly irregular. The Seeds are oblong, and convex on one side.

Plate 3. *a b c d e f*.

1. COMMON CARROT.

Plate 3. Fig. 1.

Character of the Species.

Daucus Carota.

The general Mantle rises, and the Seeds are hairy.

Fig. 1. *a b*.

THIS is a Biennial, a Plant of a yard high, common in our fields and in our gardens; though not universally known to be the same in the two states of wildness and of culture. In the condition of Nature, which it is our business here to describe, we see it in dry pastures, of a pale green colour, both in Stalks and Leaves; and covered by a white hairy matter, which gives indeed that paleness to its aspect; the Flowers are white, and as they begin to fade, the whole Umbrell turns in and grows hollow, till by that time the Seeds are ripened, the whole resembles a bird's nest.

CULTURE makes a wonderful difference in the aspect of this Plant; so much indeed, that the old Authors are to be excused, who did not suppose the *Daucus Sylvestris* of our pastures, and the Carrot of our gardens, the same Species; the Plant in the garden enlarges its Root, increases the height of the Stalk, and in a great measure deposits the hairyness of its Leaves, which thence grow darker.

2. PICKTOOTH CARROT.

Plate 3. Fig. 2.

Character of the Species.

Daucus Visnaga.

The general Mantle spreads, the Segments of the Leaves are thready, and the Seeds are smooth.

Fig. 2. *a b*.

THIS is an Annual, native of Spain; a Plant of a yard high, flowering in June. The Stalks are ribbed and pale: the Leaves are of a faint green: the Flowers are white: and the Seeds of a tawny brown. The rays of the partial Umbrell are firm and small, and serve as a kind of Toothpicks, there being a little brush of them at the head of every larger Spoke.

3. WINGED CARROT.

Plate 3. Fig. 3.

Character of the Species.

Daucus Gingidium.

The rays of the general Mantle spread, and are winged.

Fig. 3. *a b*.

THIS is a Biennial, native of the South of France; a Plant of two feet and a half high, flowering in July. The Leaves are of a strong green: the Stalks are deeply ribbed: the Flowers are white: and the Seeds dusky brown.

G E N U S III.

P A R S L E Y.

Character of the Genus.

The general Umbrell is irregular, the partial Umbrells are convex; the general Mantle is composed of broad Leaves, trifid at the ends; the partial Mantle is of flight Films; the Flowers are uniform; and the Seeds are oval and ribbed on one side.

Plate 4. *a b c d e f*

1. COMMON PARSLEY.

Plate 4. Fig. 1.

Character of the Species.

PARSLEY.
Apium Petroselinum.

The Umbrells singly terminate the Stalks.

Fig. 1. *a b*.

THIS is a Biennial, native of Sardinia, and of no other part of the world, so far as is certainly known: it there fringes the edges of little brooks, and covers whole spots of loose earth in summer, that have been wet in winter. We know it only in gardens: there nothing is more common. Its fresh green Leaves live through the winter, and 'tis then Parsley looks pleasing to the eye; for in the grown-up Plant there is no beauty. The Stalks are weak and pale: the Flowers are of a pale yet dull yellow: and the Seeds of an olive colour. It flowers in July, and the Seeds ripen in August. The general Mantle in bad seasons is often abortive, and deficient in its Segments; but usually those of the first Umbrells are perfect.

WE see a great deal of variety in this Plant from culture; the Leaves will grow very large in some places, and will be beautifully curled in others. The Roots also will be rendered large, and sweet. Hence it has been usual to account many Species of Parsley, the Curled, the Great-rooted, and the like; but changes made by culture, cannot be received as marks of different Species. What is worse, the variations from the original form of the Leaves upon the Stalk, break in upon the distinctions of Species: the fault is not in Nature, which is always correct, but in those who chose a part capable of variation for the subject of distinction. The Leaves upon the Stalk of Parsley are naturally linear, and this has been received as its distinction from Smallage; but they often will grow broad, and even curled by culture. The simple and proliferous growth of the Umbrells is the true specific distinction, as it admits no variation.

2. PROLIFEROUS PARSLEY, called SMALLAGE.

Plate 4. Fig. 2.

Character of the Species.

SMALLAGE.
Apium graveolens.

The Umbrells rise in a proliferous manner.

Fig. 2. *a b*.

THIS is a Biennial, native of our ditch-sides, a Plant of two feet high, or more, irregular in its growth, and flowering in June. The Leaves are of a very strong green: the Flowers are white: and the Seeds brown. Culture sweetens this into *Celeri*.

CELERI.





Generic
Character

Cummin

G E N U S IV.

C U M M I N.

Character of the Genus.

The general Umbrell is loose, and lightly convex; the partial Umbrell is irregular: the general Mantle consists of four trifid and lightly winged Leaves; the partial Mantle of so many fibres: the Flower consists of five equal twisted Petals: the Seeds are ribbed on one side, and oblong.

Plate 5. *o a b c d e f.*

Of this GENUS we know only one SPECIES.

1. C U M M I N.

Plate 5.

Character of the Species.

Cuminum.

The Segments of the Leaves are nearly linear.

Plate 5. *a b.*

THIS is an Annual, native of Ægypt; a low Plant, of no great beauty, flowering in July. The Leaves are of a bright green: the Stalk is green, weak, and apt to bend from joint to joint; it grows to about a foot high, and sends off many branches: the Flowers are white: and the Seeds are of a dusky brown.

THE aspect of this Plant is apt to vary in our gardens: 'tis usually low, often not more than four or five inches in height: and the Leaves of the general Mantle in that case lose some of their divisions: even Parsley is at times, and in particular seasons, subject also to the same variation. The Flowers of this Plant also will sometimes have a ruddy tinge; but this is not peculiar to Cummin, 'tis a common variation from slight accidents little attended to or known. I had this year 1763, in my garden at Baywater, a Plant of Caraway, among many white-flowered ones, with the bloom quite crimson: on taking up the Plant, a grub had half eat away the root. In Yarrow we see this often, and perhaps from the same cause; but what may seem strange to the unaccustomed observer, the Seeds of red-flowered Yarrow will produce red-flowered Plants: it is so in many other instances; and Seeds will propagate what in the parent Plant was owing to mere external causes of accident or injury.

THE Seeds of this Plant are a very noble medicine, exceeding all that are called Carminatives, in their virtue against cholics, and other complaints rising from wind; but they are unpleasant. Age also makes them worse flavoured; and as we have them from the Levant, they are often brought in when rancid and unfit for service.

G E N U S

G E N U S V.

S A N I C L E.

Character of the Genus.

The general Umbrell is loose and uneven; the partial Umbrell is clustery and convex: the general Mantle is composed of five lanced and ferrated Leaves; the partial Mantle consists of many Leaves lightly dented: the Flowers are uniform, and their Petals all turn in at the point. The Seeds are rugged and convex on one side, flat and plain on the other.

Plate 6. *a b c d e f.*

1. F O L D E D S A N I C L E.

Plate 6. Fig. 1.

Character of the Species.

Sanicula Europæa.

The Leaves are plaited in deep folds with six broad divisions: the Flowers in the partial Mantles all stand close upon very short Footstalks.

Fig. 1. *a b.*

THIS is a Perennial, native of our woods and thickets, principally on high grounds; a singular, and not unhandsome Plant, flowering in July. The Leaves are of a deep glossy and fine green, which, together with their elegance of form, makes them very conspicuous: the Stalk is of a ruddy brown, and about a foot high: the Flowers are white: the Seeds are brown, and rugged in the manner of little burrs.

2. D E E P - C U T S A N I C L E.

Plate 6. Fig. 2.

Character of the Species.

Sanicula Canadensis.

The Leaves are cut almost to their base, into six oval, ferrated divisions: the Flowers stand all close upon the summits of the partial Umbrells.

Fig. 2. *a b.*

THIS is a Perennial, native of Canada; a Plant of five feet high, flowering in August. The Leaves are of a very strong and fine green: the Stalks also are green, thick, and firm, and have but few branches: the Flowers are white: and the Seeds are brown.

3. R A G G E D S A N I C L E.

Plate 6. Fig. 3.

Character of the Species.

Sanicula Marilandica.

The Leaves are plaited, and part of the Flowers are raised upon Footstalks.

THIS is a Perennial, native of Maryland, Virginia, and other parts of America; a Plant of a foot and half high, flowering in August and September. The Leaves are of a fine green, but with a slight tinge of blueish: the Stalk is also green: the Flowers are white: the Leaves naturally rise in a vast tuft, and are very beautiful both in form and colour.

G E N U S



Generic Character



Folders
Sanicle



Ragged
Sanicle



Deep cut
Sanicle



Fine leafd Wingweed.

Broad leafd Wingweed.

GENUS VI.

WINGWEE D.

Character of the Genus.

The general Umbrell is flat, the partial Umbrell is lightly hollowed: the general Mantle is formed of ten Leaves, each divided into three parts at the point; the partial Mantle is composed of three Leaves beautifully winged; the Flowers are regular in the middle of the Umbrells, and irregular at the edge, having one Petal larger than the rest; the Seeds are covered with prominences.

Plate 7. *o a b c d e f.*

1. FINE-LEAVED WINGWEE D.

Plate 7. Fig. 1.

Character of the Species.

Artedia squammata.

The Leaves are cut into thready Segments: the Seeds are covered with scaly protuberances, obtuse at the summit.

Fig. 1. *a b.*

THIS is an Annual, native of Mount Libanus; and, so far as we yet know, peculiar to that place. It grows to near a yard in height, and flowers in June. The Leaves are of a pale dead green; the Stalk is pale, highly ribbed, and not much branched; the Flowers are white and large; the Seeds also are large, and of a deep brown, covered with membranaceous rifings, and edged with Films of the same construction. The Plant has a singularity of aspect when in flower, the winged Leaves which make the partial Mantles, being of a deep green, and mixing themselves very prettily with the tufts of Flowers which are of a pure white.

2. BROAD-LEAVED WINGWEE D.

Plate 7. Fig. 2.

Character of the Species.

Artedia muricata.

The Leaves are cut into broad Segments; the Seeds are covered with protuberances, which rise up into thorns.

Fig. 2. *a b.*

THIS is an Annual, native of Africa; a Plant of a yard high, flowering in July and August. The Leaves are of a strong and very fine green; the Stalk is firm, ridged, and upright, with few branches; the Umbrells are large and spreading; and the Flowers are white: the Seeds are large, brown, and prickly.

THIS Plant, the last, yet not the least conspicuous, of those with leafy Mantles, leads very happily from that division to the next, wherein those general appendages are filmy: the first of the succeeding Family very naturally following this.

D

UMBRELL-

U M B R E L L A S.

T R I B E II.

Having the Mantle composed of Films.

F A M I L Y the F I R S T.

Having general and partial Mantles.

O R D E R I.

Having the general Mantle composed only of one Film.

G E N U S I.

F L A P W E E D.

T R I B U L A.

Character of the Genus.

The general Umbrell is convex ; the partial Umbrells are irregular ; the general Mantle is a single filmy flap, withered and split at the end ; the partial Mantle is composed of slender Films ; the Flowers are regular in the centres of the Umbrells, but irregular by one long Petal at the edge : the Seeds are elliptic, ribbed, and covered with short Bristles.

Plate 8. *a b c d e f*.

1. B R O A D - L E A V E D F L A P W E E D.

Plate 8. Fig. 1.

Character of the Species.

Caucalis Mauritanica.

The Leaves are doubly winged, with broad deep cut Leaflets : the partial Mantle consists of only three Films ; and the Seeds are thorny. Fig. 1. *a b c d*.

THIS is a Biennial, native of Africa ; a wide spreading Plant, of a foot and half high, flowering in May and June. The Stalk is green, lightly ribbed, and branched ; the Leaves are of a pale, but not unpleasing green ; the Flowers are white ; the Seeds of a strong brown ; and so rough as to wound the fingers if touched too carelessly.

2. F I N E - L E A V E D F L A P W E E D.

Plate 8. Fig. 2.

Character of the Species.

Seseli Turbith.

The Leaves are doubly winged ; and the Leaflets are narrow and linear ; the partial Mantle consists of six Films ; and the Seeds are hairy. Fig. 2. *a b c d*.

THIS is an Annual, native of Spain ; a Plant of eight or ten inches high, flowering in June. The Stalk is brown, tender, and weak ; the Leaves are of a fresh and fine green, but their Footstalks often partake of the colour of the main Stem ; the Flowers are white ; the Seeds are brown and ribbed ; they are covered with a kind of rigid hairs, but by no means thorny, as those of the other Species.



Vol. 6 Fine leaved Flap-weed

Broad leaved Flap-weed



U M B R E L L A S

With filmy Mantles general and partial.

O R D E R II.

Those which have the general Mantle composed of four Films.

G E N U S I.

H O N E W O R T.

Character of the Genus.

The general Umbrell is uneven, and has few Spokes; the partial Umbrell is uneven, and has more Spokes: the general Mantle is composed of four unequal Films; the partial Mantle has also four unequal Films. The Flower is regular, of five Petals turning in at the points; the Seeds are oval and striated.

Plate 9. *o a b c d e f.*

1. S L E N D E R H O N E W O R T.

Plate 9. Fig. 1.

Character of the Species.

Sifon amomum.

The Leaves are winged with lanced Leafits; the Umbrells stand erect.

Fig. 1. *a b.*

THIS is a Biennial, native of damp thickets, and hedges with moist bottoms; a weak Plant, of two feet and a half in height, flowering in July. The Stalk is brown and very slender, supporting itself by leaning against the bushes, among which it grows; the Leaves are of a very fine green; the Flowers are small and white; and the Seeds are of an olive brown.

2. D R O O P I N G H O N E W O R T.

Plate 9. Fig. 2.

Character of the Species.

Sifon fegetum.

The Leaves are winged with deep cut Leafits; the Umbrells droop.

Fig. 2. *a b.*

THIS is a Biennial, native of our corn fields, and waste dry grounds; a Plant very beautiful in Leaf, but with no elegance of Stalk or Flowers. The Leaves are of a fine green, delicately winged, of a considerable length, with very numerous Leafits; and keep their freshness all the winter; the Stalk is upright, two feet high, green, and not much branched; the Flowers appear in June, and are white and inconsiderable; the Seeds are brown.

3. T E R N A T E H O N E W O R T.

Plate 9. Fig. 3.

Character of the Species.

Sifon Canadense.

The Leaves grow by threes on the Stalk, and those from the Root by fives.

Fig. 3. *a b.*

THIS is a Perennial, native of Virginia; a Plant of two feet and a half in height, flowering in June and July. The Leaves are of a brownish green; the Stalk also is brown; the Flowers are white and small; the Seeds are of a dusky olive colour.

4. F I N E -

4. FINE-LEAVED HONEWORT.

Plate 10. Fig. 1.

Character of the Species.

Sifon ammi.

The Leaves are formed of fine slender, thready Segments.

Fig. 1. a.

THIS is an Annual, native of Ægypt, and of some of the Southern parts of Europe; a Plant of near a yard in height, very branchy, and covered thick with delicate and well-coloured Leaves, flowering in June. The Stalk is green, and very little ribbed; the Leaves are of a bright and very beautiful, though not strong green; the Flowers are white and small; and they stand so loosely scattered over the Plant, that they make very little figure; the Seeds are small, slender, and of a pale brown.

5. FORKY HONEWORT.

Plate 10. Fig. 2.

Character of the Species.

Sifon inundatum.

The lower Leaves are thready; the upper Leaves are winged with a few wedgy Leaflets; the Umbrells divide in a forked manner.

Fig. 2. a b c.

THIS is a Perennial, native of our shallow ponds and ditches, where it lives part above, part under water; and flowers in June. The Stalk is weak, branched, of a pale brown, and not more than seven or eight inches high; the Leaves which grow under water are fine and thready, like little Leaves of Fennel, and these are of a dusky green; those above the water are of some breadth, and of a bright and not unpleasing colour; the Flowers are white and inconsiderable; the Seeds are small and brown.

6. STARRY HONEWORT.

Plate 10. Fig. 3.

Character of the Species.

Sifon verticillatum.

The lower Leaves have whorls of Leaflets, like the rays of a Star.

Fig. 3. a.

THIS is a Perennial, native of the mountainous parts of Europe, where there are springs, or other damp grounds; a very singular Plant, flowering in July and August. The Stalk is two feet and a half high, the colour a pale brown; the Branches are few; and the Leaves, which are broader and differently disposed from those at the ground, are of a faint and somewhat brownish green; the bottom Leaves have, with the singularity of their shape, also a fine, strong, and pure green colour, but their Stalks usually also are brownish; the Flowers are small and white; the Seeds are brown.

U M B R E L .

2



Fine leaved
Honewort

Forked Honewort

Starry Honewort



U M B R E L L A S

With filmy Mantles general and partial.

O R D E R III.

Those which have the general Mantle composed of five Films.

G E N U S I.

A N G E L I C A.

Plate II.

Character of the Genus.

The general Umbrell is rounded and clustery ; the partial Umbrell is globular : the general Mantle consists, when perfect, * of five short Films ; the partial Mantle has eight very small Films. The Flowers are regular, composed of five Petals turning in at the points ; the Seeds have each three ribs, and a filmy edge.

Plate II. *o a b c d e f g.*

1. L O B A T E D A N G E L I C A.

Plate II. Fig. 1.

GARDEN ANGELICA.
Angelica Archangelica.

Character of the Species.

The extreme Leafit is always trilobate, or formed of three united Leafits.

Fig. 1. *a.*

THIS is a Perennial, native of the North of Europe as far as Lapland, and of many of the warmer Southern countries, as Spain and Portugal, where it covers the banks of running waters for many miles with its vast and fresh Leaves for almost all the year : with us it is kept in gardens. 'Tis a large, robust, and stately Plant, flowering in June. The Stalk is as thick as a child's wrist, six feet high, and of a pale green ; the Leaves are of a deeper green ; the Flowers are white, with a greenish cast ; the Seeds are of an olive brown. In the warmer countries, the root of this Plant is highly aromatic, and possesses great virtue as a cordial and cephalic ; but the colder the climate, the less, gradually, become these qualities.

2. F R E E - L E A V E D A N G E L I C A.

Plate II. Fig. 2.

Character of the Species.

Angelica sylvestris.

The Leafits stand free, and the extreme one is always simple. Fig. 2. *a.*

THIS is a Perennial, native of our wet grounds, especially where there is some shade ; a tall and stately Plant, though less so than the preceding, flowering in July, a full month later than that kind. The Stalk is thick, brownish, and four or five feet high ; the Leaves are of a deep green, with a tinge of brown ; the Flowers are white and small ; the Seeds are dusky. When this Plant stands free of Trees, it is lower in its growth, and has much more flavour in its Leaves and Root, than where shaded.

* These Films fall off soon, and part are often withered in the bud. They should in all umbrella'd Plants be sought in the young Umbrells.

3. CRIMSON ANGELICA.

Plate 12. Fig. 1.

Character of the Species.

Angelica atropurpurea.

The extreme Leaflet is composed of three, and stands upon a Footstalk.

Fig. 1. a b.

THIS is a Perennial, native of Virginia, and other parts of North America; a very beautiful and noble Plant, inferior scarce to any of this class, flowering in July and August. The Leaves are very large, a yard in length often, and near as much in breadth; of a fresh green, and very beautiful, for the Leaflets stand free and open, and the Footstalks are all of a very fine crimson. When the Plant grows under shade, this colour is often very deep and obscure, but in the free air of a garden it is bright and delicate. The Stalk is eight feet high, of the same bright glowing crimson with the Leaf-stalks, but covered with a purplish dust, like what we call the bloom upon the Plum. This is the beauty of the Plant, for its Flowers are inconsiderable. They are small and white; and being placed in little Umbrells, they have not the grace of the vast ones of the two preceding Species.

4. GLAZED ANGELICA.

Plate 12. Fig. 2.

Character of the Species.

Angelica lucida.

The Leaflets are deeply gash'd and cut in at the edges; and the extreme one is always simple, and stands free.

Fig. 2. a b.

THIS is a Perennial, native of Canada, and other parts of North America; a very handsome Plant, and singular in its aspect; but its beauty, as in the first kinds, is principally in the Leaves before the Flower-stalk rises, for they generally then fade; and that has no great beauty. The Leaves are vast, and are composed of innumerable Leaflets, which are deeply and finely cut about the edges, and are of a fresh green, which looks with an uncommon beauty, from a kind of glossy varnish covering them always, and giving them a polished and shining appearance. The Stalk is green, and also glossy; the Flowers are small and white; the Seeds are brown. This, like the rest, loves damp and somewhat shady ground, and flowers latest of them all, in August.

GENUS



Crimson Angelica

Glazed Angelica.



Petroselinum macedonicum

Glaucous Gum-weed



Vol. 6 Spreading Gum weed.



Hard leaved Gum weed

G E N U S II.

G U M M W E E D.

Plate 13.

Character of the Genus.

The general Umbrell is irregularly convex and clustery; the partial Umbrell is very clustery and flat: the general Mantle is of five short, lanced, spreading Films; the partial Mantle has six or more narrow Films. The Flower has five Petals lanced and bent in; the Seeds are striated and hairy.

Plate 13. a b c d e f.

1. G L A U C O U S G U M M W E E D.

Plate 13. Fig. 1.

Character of the Species.

Bubon galbaniferum.

The Leafits are lozenge-shaped, but broad at the end, and deeply serrated.

Fig. 1. a b.

THIS is a Perennial, native of Africa; a tall, stately, and very singular Plant, flowering in July and August. The Stalk is thick, firm, woody at the base, and rises to eight feet high; it is of a brownish green, and covered with a fine resinous grey dust, which rubs off with a touch. The Leaves are of a very beautiful blueish or greyish green, fleshy and firm, and when broken, yield a thick white juice of a rank smell, exactly that of the Galbanum of the shops. The Flowers are yellow, they are small, but stand thick in the tufts; the Seeds are small, of an olive brown, and hairy.

2. S P R E A D I N G G U M M W E E D.

Plate 13. Fig. 2.

Character of the Species.

Bubon gummiferum.

The Leaves are formed of numerous wedgy Leafits, cut into three at the extreme points.

Fig. 2. a b.

THIS is a Perennial, native of the Cape of Good Hope; a tall Plant, and robust like the former, flowering in July and August. The Stalk is hard and woody near the base; it rises to ten feet in height, and has many spreading Branches; the Leaves are of a pale and dead green, and they are coarser in their divisions in the lower, than in the upper part of the Plant. The Flowers are small and yellow, but they are collected in large spreading Umbrells, whence they make some shew; the Seeds are pale.

3. H A R D - L E A V E D G U M M W E E D.

Plate 13. Fig. 3.

Character of the Species.

Bubon rigidum.

The Leafits are small, linear, undivided, and hard to the touch.

Fig. 3. a b.

THIS is a Perennial, native of Sicily; a low Plant, of no beauty, flowering in June. The Stalk is a foot high, and has few Branches; the Leaves are hard to the touch, and of a dusky brownish green; the Flowers are white; and the Seeds brown.

*** Linnaeus adds the Petroselinum Macedonium of authors to this Genus, but its Mantle is composed of very numerous Films, and it belongs to our fourth Order, and to the Genus Tordylium. Plate 32.

GENUS III.

STONE PARSLEY.

Plate 14.

Character of the Genus.

The general Umbrell is uneven, with few rays; the partial Umbrell has the outer rays loner than the inner: the general Mantle is composed of five broad, edged Films; the Films of the partial Mantle are also long, with some breadth. The Flowers are irregular, the central ones small, and of five equal Petals; the outer ones larger, and with one great, hearted Petal; the Seeds are ribbed, and armed with a kind of little thorns.

Plate 14. *o a b c d e f*.

1. GREAT-FLOWERED STONE PARSLEY.

Plate 14. Fig. 1.

Character of the Species.

Caucalis grandiflora.

The general Mantle has one Film larger than the rest, and cut in at the edge.

Fig. 1. *a b*.

THIS is a Biennial, native of the corn fields of Spain and Italy, and flowers in July. The Stalk is ribbed, green, and not much branched; it rises to a foot and half in heighth, and is thick set with Leaves; these are of a faint, but not unpleasant green: the Flowers are white, but sometimes have a blush of red in them; they are larger than in most Plants of this kind, and have a kind of beauty: the Seeds are rough, and of a dusky brown.

2. LONG-MANTLED STONE PARSLEY.

Plate 14. Fig. 2.

Character of the Species.

Caucalis daucoides.

The Films of the Mantle equal the Spokes of the Umbrell in length.

Fig. 2. *a b*.

THIS is a Biennial, native of the South of France; a Plant common about the edges of vineyards, low, and of no beauty, flowering in July and August. The Stalk is ribbed, and of a dusky green; the Leaves are of a coarse and deep green, but with some tinge of yellowish; the Flowers are white; the Seeds are of a pale olive, or brown, with a tinge of green.

3. TRIFID STONE PARSLEY.

Plate 14. Fig. 3.

Character of the Species.

Caucalis platycarpus.

The general Umbrell has only three Spokes, and the partial the same: the Stalk is upright; and the Leaves are smooth.

Fig. 3. *a b*.

THIS is an Annual, native of Italy, and the South of France, on cultivated ground, flowering in June. The Stalk is green, ribbed, and two feet high; the Leaves are of a good green; the Flowers are white; and the Seeds of a deep brown, large, and rugged. Neither these nor the Flowers make any great shew, they stand so loosely on the head.

4. DE-



*Great flower'd
Stone Parsley. Vol. 6*

*Trifid
Stone Parsley*

*Long mantled
Stone
Parsley.*



4. DECUMBENT STONE PARSLEY.

Plate 15. Fig. 1.

Character of the Species.

Caucalis pumila.

The general Umbrell has three rays; the Leaves are hairy underneath, and the Stalk leans upon the ground.

Fig. 1. *a b c.*

THIS is an Annual, native of Germany, and some parts of France; a mean and low Plant, of no beauty, flowering throughout the fore part of Summer. The Stalk is brown and weak, not more than a foot in length, and usually lying half the way upon the earth. The Leaves are of a strong, but somewhat dusky green; the Flowers are white and small; but the Seeds are very conspicuous, being large, rugged, and of a very deep brown.

5. SPREADING STONE PARSLEY.

Plate 15. Fig. 2.

Character of the Species.

Caucalis orientalis.

The Umbrells spread; the Leaves are thrice winged; and the Leaflets linear.

Fig. 2. *a b c.*

THIS is a Biennial, native of the Greek Islands; a tall and stately Plant, flowering early in June. The Stalk is of a greyish green, ribbed, and four feet high; the Leaves are of the same grey green with the Stalk but deeper; the Flowers are large and white; and the Seeds rugged and brown. This is by far the most specious Plant of all the *Caucalis*'s. The height and firmness of its Stalk, and its broad head of Flowers, seem, if habit could be so regarded, to remove it into some other Genus.

6. THREE-THORNED STONE PARSLEY.

Plate 15. Fig. 3.

Character of the Species.

Caucalis leptophylla.

The thorns of the Seeds terminate each in three hooked points.

THIS is a Biennial, native of the South of France and Italy; a very singular Plant, flowering in June and July. The Stalk is thick, ribbed, and bent from joint to joint; the Leaves are of a greyish, or somewhat blueish green; the Flowers are crimson. They are small, and only conspicuous by their colour, but the Seeds are very large, and have a thorny, or rather burry armature, which gives them a very particular appearance. Their colour is a pale, but yet coarse brown.

G E N U S IV.

H A R E S E A R.

Plate 16.

Character of the Genus.

The general Umbrell is loose and uneven ; the partial Umbrells are lightly convex, and also loose : the general Mantle is composed of five lanced Films, which spread open ; the partial Mantles are also of five lanced Films. The Flowers are uniform, composed of five Petals turned in, and hearted. The Seeds are oval, smooth, and striated on one side.

Plate 16. *a b c d e f*.

1. EGG-LEAVED HARES EAR.

Plate 16. Fig. 1.

Character of the Species.

Bupleurum rotundifolium.

The Leaves are egg-shaped, and the Stalk grows through them. Fig. 1. *a b*.

THIS is an Annual, native of our corn fields, and flowers in June : it grows to a yard in height. The Stalk is yellowish and smooth ; the Leaves also are of a yellowish green ; the Flowers are pale yellow ; and the Seeds are brown.

THE manner in which the Stalk of this Plant grows, through the body of the Leaf has caused it to be called Thoroughwax, and Perfoliata, and that name has by some been attributed, for its sake, to the whole Genus ; but as many of the Species have nothing of that character, it seems best to adopt the other English name of Hares Ear.

LINNÆUS gives the want of the general Mantle in this Species, as part of its distinctive character: but accident only had divested the Plants he saw of that part. Here at Baywater, the general Mantles were perfect, and of five Films ; though dry weather coming on, part of the Films soon fell off in some, and all in others.

2. NERVY HARES EAR.

Plate 16. Fig. 2.

Character of the Species.

Bupleurum petraeum.

The Leaves are grassy, with hard ribs ; the Films of the partial Mantles grow together for half way from their base. Fig. 2. *a b*.

THIS is a Perennial, native of Germany and Switzerland ; a low Plant, but not without beauty, flowering in June. The Stalk is a foot and half high, with few branches ; the Leaves are deep green ; and the Flowers pale straw colour.

3. VARIOUS-LEAVED HARES EAR.

Plate 16. Fig. 3.

Character of the Species.

Bupleurum angulosum.

The lower Leaves are grassy ; those above are long oval, and perfoliate ; the Films of the Mantles are hooped. Fig. 3. *a b c*.

THIS is a Perennial, native of Switzerland, and of the Pyrenees ; a Plant of two feet high, flowering in July. The Leaves are of a pale green ; the Stalk is tough and slender ; the Flowers are buff-coloured. Part of the general Mantle often falls away.

4. LONG-





Long leaved Hares Ear.



Wavy Hares Ear.



Pyramidal Hares Ear.



Decumbent Hares Ear.

4. LONG-LEAVED HARES EAR.

Plate 17. Fig. 1.

Character of the Species.

Bupleurum longifolium.

The Leaves are long and lanced; those on the upper part of the Plant are perfoliate; the lower stand loose, and have flat Footstalks. Fig. 1. *a b.*

THIS is a Perennial, native of the Swiss mountains, and of some parts of Germany; a Plant of a foot high, flowering in July. The Stalk is brown at the base; the Leaves are of a strong deep green; the Flowers are of a very pale and whitish yellow.

5. WAVY HARES EAR.

Plate 17. Fig. 2.

Character of the Species.

Bupleurum falcatum.

The Leaves are oblong, wavy, and bend down; the Films of the partial Umbrells are long, narrow, open, and sharp-pointed. Fig. 2. *a b c.*

THIS is a Biennial, native of the mountains of Germany and Switzerland; a Plant of a foot and half high, flowering in August. The Stalk is hard, almost woody, and brown; the Leaves are of a deep and very fine green; the Flowers are of a pale brimstone yellow.

LET not the Student wonder we omit, what has been observed particular in the general Mantles of this, and some others of this Genus. Experience leads us to discard their accidents, in either character or description. This is supposed to have but two Films in the general Mantle, because three of the five fall easily off in bad seasons, or in the late Umbrells are not produced at all. Nature gives five as perfect as in the others.

6. PYRAMIDAL HARES EAR.

Plate 17. Fig. 3.

Character of the Species.

Bupleurum odontites.

The Leaves are grassy: one Flower in every partial Umbrell rises higher than the rest, and gives a raised pyramidal appearance to each cluster. Fig. 3. *a b.*

THIS is an Annual, native of the Swiss mountains, and of some parts of Italy; a low, but spreading Plant, that flowers in August. The Stalk is jointed, and tinged with brown; the Leaves are of a strong, but somewhat yellowish green; the Flowers are of a light yellow.

7. DECUMBENT HARES EAR.

Plate 17. Fig. 4.

Character of the Species.

Bupleurum femicompositum.

The Stalk leans: the Leaves are grassy, waved, and half perfoliate. Fig. 4. *a b.*

THIS is a Biennial, a low Plant, native of Italy, and flowers in June. The Stalk is pale, weak, and not a foot long; the Leaves are of a whitish green; the Flowers are yellow. 'Tis said, there are sometimes no partial Umbrells: but my specimens have been compleat.

8. ODD-LEAVED HARES EAR.

Plate 18. Fig. 1.

Character of the Species.

Bupleurum ranunculoides.

The Leaves are lanced and narrow, but at the top, where the Stalk divides, there is one broad, heart-shaped, and amplexicaul.

Fig. 1. *ab.*

THIS is a Perennial, native of Savoy; a Plant of fifteen inches high, flowering in June. The Stalk is green and wavy; the Leaves are long and firm, and their colour is a very fine deep green; the Flowers are yellow. In this Species the general Mantle is often defective in some of its parts; two of the Films are naturally smaller and less juicy than the rest, and these fall early and easily; sometimes only the rudiments of them are seen from the beginning. It is become a custom to admit the imperfect state of this Mantle in the present Genus, as a character of specific difference; but though it appears to me wrong, yet as it may be an obvious, though not a certain mark, it is here added in all the figures, though too vague to be referred to in the characters. Indeed few Genera are less distinctly treated, than *Bupleurum*. What is here said of some of the Species, differs from the accounts of authors; but it agrees with nature.

9. FORKED HARES EAR.

Plate 18. Fig. 2.

Character of the Species.

Bupleurum rigidum.

The Stalk splits always forkwise into two; the Leaves are broad lanced.

Fig. 2. *ab.*

THIS is a Perennial, native of the South of France; a Plant of two feet and a half high, regularly branched, and not unhandsome; flowering in May and June. The Stalk is firm, ribbed, and blueish; the Leaves are of a strong, but blueish green; the Flowers are yellow.

10. SLENDER HARES EAR.

Plate 18. Fig. 3.

Character of the Species.

Bupleurum tenuissimum.

The Leaves are grassy: and the Footstalks of the Umbrells rise from their bosoms.

THIS is a Biennial, native of our dry way sides, but not common; a low and inconsiderable Plant, flowering in August. The Stalk is pale, a foot and half long, and leans upon the ground; the Leaves are of a pale green; the Flowers are inconsiderable, and almost white, but they have something of a greenish or yellowish tinge. Bad ground, or bad seasons, will reduce the Umbrells of this Plant to simple tufts; but in my Plants, gathered near Thorndon in 1748, they are composed as they ought to be, and so they are this year, 1763.

11. WOOLLY

HARES EAR . .

3



Forked Hares Ear.

Odd leaved Hares Ear.

Slender Hares Ear.



11. WOOLLY HARES EAR.

Plate 19. Fig. 1.

Character of the Species.

Bupleurum villosum.

The Stem is woody : the Leaves embrace the Stalk, and are dented and woolly underneath.

Fig. 1. *a b.*

THIS is a Perennial woody Plant, native of the Cape of Good Hope, and flowers in August. The Stem is covered with a pale bark ; the young Shoots are reddish ; the Leaves are of a deep and dusky green on the upper side, but white and woolly underneath ; the Flowers are of a pale yellow.

12. OBTUSE HARES EAR.

Plate 19. Fig. 2.

Character of the Species.

ÆTHIOPIAN HARTWORT.

Bupleurum fruticosum.

The Stalk is woody : the Leaves are oblong, obtuse, and smaller all the way to the base.

Fig. 2. *a b.*

THIS is a Perennial woody Plant, native of the South of France, and of Italy ; principally about the sea coasts : we have long had it common in green-houses and gardens, where it grows into a kind of weak bush of four feet high, but by no means is a proper shrub : 'tis only that its Stalks are woody and permanent. The Leaves are of a pale, but very pleasing greyish green : the twigs are pale also near the ends, but elsewhere their bark is purplish : the Flowers are yellow.

13. LINEAR HARES EAR.

Plate 19. Fig. 3.

Character of the Species.

Bupleurum fruticens.

The Leaves are linear, and the bottom of the Stem is woody.

Fig. 3. *a b.*

THIS is a Perennial, native of Spain and Italy ; a woody Plant, of a yard high, flowering almost all summer. The Leaves are of a dark and strong green, but with a faint tinge of yellowish ; the bark of the Stem is of a rusty brown, but the young Shoots are green ; the Flowers are of a pale, and not pleasing yellow.

14. DIFFORM HARES EAR.

Plate 19. Fig. 4.

Character of the Species.

Bupleurum difforme.

The lower Leaves are decompound ; the upper, clustered, square, and slender.

Fig. 4. *a b.*

THIS is a woody Plant, native of the Cape of Good Hope, and flowers in August. The Stalk is brown and woody ; the young Shoots are green ; the lower Leaves are formed like Parsley ; the upper are square ; all are of a pale green : the Flowers are white, with a greenish tinge. This Plant joins the Bupleurums, whose Leaves are otherwise singular in shape to the other umbrella'd Plants.

G

O R D E R

ORDER IV.

With the general Mantle of many Films.

GENUS I.

EARTH NUT.

Plate 20.

Character of the Genus.

The general Umbrell is loose, and lightly convex; the partial Umbrells are irregular, clustered, and flattish. The general Mantle is composed of many short, spread Films; the partial Mantles of several drooping Films. The Flowers are uniform, of five Petals turned in and hearted, one only being something larger than the rest. The Seeds are egg-shaped, but flat on one side.

Plate 20. *o a b c d e f*.

1. FINE-LEAVED EARTH NUT.

Plate 20. Fig. 1.

Character of the Species.

Bunium bulbocastanum.

The Leaves are composed of a multitude of fine slender Segments.

Fig. 1. *a b*.

THIS is a Perennial, native of our dry pastures, and common among thickets, and in woods; a Plant of a foot and half high, flowering in June. The Leaves are of a deep and blackish green; the Stalk is brown; the Flowers are white; and the Seeds of a dusky brown. The root of this Plant is tuberous, and as big as a small walnut, excellent to the taste, and wholesome; I have tried to enlarge and mellow them by culture; and something may be done by keeping them near the surface.

GENUS II.

SPUNGEEWEED.

Plate 20.

Character of the Genus.

The general Umbrell is irregular and depressed; the partial Umbrells are lightly convex. The general Mantle is composed of many drooping linear, pointed Films; the partial Mantles are of the same form. The Flowers are uniform, of five lanced upright Petals; the Seeds are spungy and striated.

o a b c d e f.

1. MULTIFID SPUNGEEWEED.

Plate 20. Fig. 2.

Character of the Species.

Cachrys libanotis.

The Leaves are doubly winged; the Leaflets split into linear Segments.

Fig. 2. *a b*.

THIS is a Perennial, native of Sicily and Spain; a tall and robust Plant, flowering in June. The Stalk is five feet high, and branched; the Leaves are of a bright and shining green; the Flowers are of a strong, but not agreeable yellow; the Seeds are of a pale brown; they are of a very remarkably spungy, or, as it were, fungous texture.

GENUS



Generic Character



Fine leaved Earth-nut.



Multifid Spongeseed.



G E N U S III.

H E M L O C K.

Plate 21.

Character of the Genus.

The general Umbrell is clustery spread, and lightly convex: the partial Umbrells are clustery and flatted. The general Mantle consists of a number of very short Films; the partial Mantles are composed of linear Films. The Flowers are uniform; each has five hearted Petals which turn in at the tips, and one of these is larger than the others. The Seeds are swoln and striated.

Plate 21. *a b c d e f*.

1. S P O T T E D H E M L O C K.

Plate 21. Fig. 1.

Character of the Species.

Conium maculatum.

The Seeds are simply striated.

Fig. 1. *a*.

THIS is a Biennial, native of our waste grounds; a tall Plant, with many branches; flowering in July: it grows to six feet in heighth. The Stalk is stained, and spotted with a dusky crimson; the Leaves are of a very strong green; and the Flowers are white.

THIS is the Plant of late recommended for the cure of cancers: we have tried it, with no more success than Nightshade.

2. B L U E - L E A V E D H E M L O C K.

Plate 21. Fig. 2.

Character of the Species.

Conium Africanum.

The Seeds are striated and warted.

Fig. 2. *a*.

THIS is a Biennial, native of Africa; a Plant of three feet high, flowering in June. The Stalk is weak, but hard at the base; brown in that part, and green above, and has many irregular weak branches: the Leaves are of a bright, but not strong green; the Flowers are white; and the Seeds are brown.

3. T H O R N Y H E M L O C K.

Plate 21. Fig. 3.

Character of the Species.

Conium Royeni.

The Seeds are striated, and covered with thorns.

Fig. 3. *a*.

THIS is a Biennial, native of Africa; a Plant of four feet high, flowering in June. The Stalk is ribbed and pale: the Leaves are of a very strong green: the Flowers are white: the Seeds are of a dusky brown, and dangerous to handle.

GENUS IV.
SPIGNELL L.

Plate 22.

Character of the Genus.

The general Umbrell is of many rays, broad, and lightly convex; the partial Umbrells are depreffed. The general Mantle is of many linear Films, nearly as long as the spokes of the Umbrell; the partial Mantles are of narrow Films, as long as the partial spokes. The Flowers are uniform, but one Petal is a little longer than the rest. The Seeds are oval and striated.

Plate 22. *o a b c d e f*.

1. ROUGH SPIGNELL.

Plate 22. Fig. 1.

Character of the Species.

Athamanta libanotis.

The Leaves are twice winged, and flat; and the Seeds are rough. Fig. 1. *a b c*.

THIS is a Perennial, native of the pasture grounds of Germany and Sweden; a Plant of near a yard in heighth, flowering in June. The Stalk is branched and dusky; the Leaves are of a bright green; the Flowers are yellow; and the Seeds are brown.

2. WINGED SPIGNELL.

Plate 22. Fig. 2.

Character of the Species.

Athamanta cervaria.

The Leaves are simply winged; and their Leafits very deeply cut and jagged. Fig. 2. *a b*.

THIS is a Perennial, native of the high grounds of Switzerland and Savoy; a Plant of two feet and a half high, flowering in July. The Stalk is brown, and not much branched; the Leaves are of a strong, and not unpleasing green; the Flowers are white; and the Seeds pale brown.

3. TILY SPIGNELL.

Plate 22. Fig. 3.

Character of the Species.

Athamanta condensata.

The Leaves are winged; and the Leafits are very deep cut, and hang over one another. Fig. 3. *a b*.

THIS is a Perennial, native of Siberia; a Plant of singular aspect, and not without beauty; flowering in July and August. The Stalk rises to a foot and half with few branches; the Leaves are of a very pleasing green; the Flowers are white, but there is a blush of crimson on them in the bud; the Seeds are pale.

4. WIDE-SPREAD SPIGNELL.

Plate 22. Fig. 4.

Character of the Species.

Athamanta oreofelinum.

The Leaves are doubly winged, and their Leafits spread out wide. Fig. 4. *a b*.

THIS is a Perennial, native of the high grounds throughout the North of Europe; a Plant of two feet and a half high, flowering in July. The Stalk is pale; the Leaves are of a fine green; the Flowers are white; and the Seeds of a deep brown.





Bristly Spignell.

Eyelashid Spignell

5. BRISTLY SPIGNELL.

Plate 23. Fig. 1.

Character of the Species:

Athamanta Sicula.

The Leaves are divided into a multitude of fine short parts: the Seeds are covered with firm, though tender hairs, resembling bristles. Fig. 1. a b.

THIS is a Perennial, native of Siberia; a Plant of a yard or more in height, flowering late in Autumn. The Leaves are of a delicate green, and lie naturally flat, so as to shew their divisions very beautifully: the Stalk is green, ribbed, and branched: the Flowers are white: and the Seeds are of a dirty brown. They feel at once harsh and tender to the touch, the bristles resisting first, and then giving away.

6. EYE-LASH'D SPIGNELL.

Plate 23. Fig. 2.

Character of the Species.

Athamanta Cretensis.

The Leaves are covered with long hairs, which appear as eye-lashes at the edges: the Seeds are egg-shaped, and hairy. Fig. 2. a b.

THIS is a Biennial, native of Switzerland; a Plant of two feet high, flowering in July. The Stalk is tender, and of a pale green; the Leaves also are of a pale, but not unpleasing green; the Flowers are white; and the Seeds are of a deep brown.

THIS is the Plant whose Seeds are called *Dauci Cretensis femina* by the druggists; we have raised Plants from those Seeds, which differ a little in aspect from those of the Swiss pastures, the Leaves being formed of longer parts, with less breadth, but it does not amount to a distinction of Species. This Plant will also sometimes, like the Carrot, lose its hairyness in a great degree; in which case it has a yet greater aspect of difference, but without real distinction.

7. CRIMSON SPIGNELL.

Plate 24. Fig. 1.

Athamanta annua.

Character of the Species.

The Leaves are cut into a multitude of narrow, linear, and somewhat rounded parts ; the Seeds are covered with downy hairs. Fig. 1. *a b.*

THIS is an Annual, native of Crete ; a Plant of no great stature, but for one of this class not destitute of beauty. The Leaves are of a very delicate, though not strong green, and throw their slender tips about in a way very pleasing to the eye. The Stalk is lightly hairy, and has a few Branches ; the Flowers are of a flight, but very beautiful crimson, like that we see sometimes on the wild Yarrow ; the Seeds are brown, and covered with a delicate kind of hairs.

8. WAVY SPIGNELL.

Plate 24. Fig. 2.

Athamanta Chinenfis.

Character of the Species.

The Leaves are cut into long wavy Segments : the Seeds are filmy, with fine tender edges. Fig. 2. *a b.*

THIS is a Biennial, native of China, Tartary, and some parts of North America ; a Plant of two feet in height, flowering in July. The Leaves are of a deep and dull blueish green, composed of narrow parts, waved at the edges ; the Stalk is high ribbed, hollow, and not very strong, but naturally bent from joint to joint ; the Flowers are white ; and the Seeds are of a deep brown, with pale filmy edges to the streaks.

9. BEARDED SPIGNELL.

Plate 24. Fig. 3.

ENGLISH SPIGNELL.

Athamanta meum.

Character of the Species.

The Leaves are cut into extremely fine parts ; the Seeds are striated and smooth. Fig. 3. *a b.*

THIS is a Perennial, native of our pastures in the Northern counties ; a Plant of two feet high, flowering in June. The Leaves are of a very deep, but very fine green ; the Stalks are furrowed, green, and tender ; the Flowers are white ; and the Seeds of a dusky brown.

THERE is always found at the crown of the root in this Plant, a tuft or beard of brown hair-like fibres, the remainder of old Leaf-stalks.

G E N U S

3





G E N U S V.
H O G - F E N N E L.

Plate 25.

Character of the Genus.

The general Umbrell is lightly convex, composed of a few long rays ; the partial Umbrells are composed of few rays, and uneven : the general Mantle is composed of several tender, narrow, hooked Films, which soon fall off ; the partial Mantle is formed of several linear Films : the Flowers are uniform and regular, composed of five ascendant Petals : the Seeds are elliptic, and have each three ridges.

Plate 25. *a b c d e f*.

1. FIVE-PARTED HOG-FENNEL.

Plate 25. Fig. 1.

Character of the Species.

Peucedanum officinale.

The Leaves are composed of five parts, each of which is cut into three linear Segments.

Fig. 1. *a b*.

THIS is a Perennial, native of our rich damp pastures, but not common ; a Plant of about two feet in height, flowering in July. The Leaves are of a dusky, and somewhat blueish green ; the Stalks are of the same blue green, but paler ; the Flowers are yellow ; and the Seeds are brown.

2. SPREADING HOG-FENNEL.

Plate 25. Fig. 2.

Character of the Species.

Peucedanum alpestre.

The Leaves are cut into multitudes of spreading linear Segments.

Fig. 2. *a b*.

THIS is a Biennial, native of the Pyrenees ; a Plant of two feet and a half in height, flowering in July. The Leaves are of a fresh and fine green ; the Stalk is ribbed, and has few branches ; the Flowers are pale yellow ; and the Seeds are brown.

3. PINNATIFID HOG-FENNEL.

Plate 25. Fig. 3.

Character of the Species.

MEADOW SAXIFRAGE.

Peucedanum filaus.

The Leaves are composed of broad Segments, united at their base, and placed opposite.

Fig. 3. *a b c*.

THIS is a Perennial, native of our damp pasture grounds ; a Plant of two feet high, flowering in June. The Leaves are of a deep and dusky green ; the Stalks are also of a dusky colour ; the Flowers have a pale tinge of yellow ; and the Seeds are brown.

4. KNOTTED HOG-FENNEL.

Plate 25. Fig. 4.

Character of the Species.

Peucedanum nodosum.

The Stalks swell at the joints ; the Leaves are composed of narrow parts, placed alternate.

Fig. 4. *a b*.

THIS is a Perennial, native of Crete ; a Plant of two feet and a half high, flowering in June. The Stalks are striated, and swell into thick knots at the joints ; the Leaves are of a strong, but somewhat yellowish green ; the Flowers are white, with a very flight tinge of yellow ; and the Seeds are pale.

GENUS VI.

SAMPIRE.

Plate 26.

Character of the Genus.

The general Umbrell is convex, with many rays; the partial Umbrells are irregularly convex. The general Mantle has several obtuse Films, lanced, and turned back at the points; the partial Mantles are composed of many linear Films, of the length of the partial rays. The Flowers are uniform and regular; each has five oval Petals, which turn in at the tips. The Seeds are elliptic, flattened, and striated on the back. Plate 26. *o a b c d e f*.

1. FLESHY SAMPIRE.

Plate 26. Fig. 1.

Character of the Species.

TRUE SAMPIRE.
Crithmum maritimum.

The Leaves are composed of fleshy, and somewhat lanced Segments.

Fig. 1. *a b*.

THIS is a Perennial, native of our cliffs to the sea, a singular Plant, of near a yard in height, flowering in August. The Leaves are of a blueish green, thick, juicy, and, as it were, fleshy; the Stalk is thick and striated; the Flowers are white; the Seeds are brown.

THIS is the Plant, whose young Leaves are the true Sampire for pickling; but there is a great deal of abuse among those who prepare it.

2. WEDGY SAMPIRE.

Plate 26. Fig. 2.

Character of the Species.

Crithmum Pyrenaicum.

The Leaves are cut into many parts by threes, which have a wedgy form, and are dented in threes at the ends.

Fig. 2. *a b*.

THIS is a Perennial, native of the Pyrenees; a Plant of two feet high, flowering in June. The Leaves are of a very pleasing green; the Stalk is ribbed and tender; the Flowers are white; and the Seeds are olive-coloured.

GENUS



Generic Character

Fleshy Sampire.

Wedgy Sampire.



Generic Character

Colembine Laserwort

Broad leav'd Laserwort



Wedgy Laserwort.

Narrow leav'd Laserwort

GENUS VII.

LASERWORT.

Plate 27.

Character of the Genus.

The general Umbrell is composed of many rays, and nearly flat: the partial Umbrells are uneven, but also nearly flat; the general Mantle is composed of numerous short Films, spread out like-rays; the partial Mantles have also several short and strait Films. The Flowers are regular and uniform, each has five hearted Petals which turn in at the points. The Seeds are oblong, and each has four large filmy ribs.

Plate 27. *o a b c d e f.*

1. BROAD-LEAVED LASERWORT.

Plate 27. Fig. 1.

Character of the Species.

Laferpitium latifolium.

The Leaves are composed of broad parts, cut into threes, and deeply dented.

Fig. 1. *a b.*

THIS is a Perennial, native of dry woods and thickets in France; a Plant of near a yard in heighth, flowering in July. The Leaves are of a deep, but very fine green; the Stalk is ribbed; the Flowers are white; and the Seeds brown.

2. COLUMBINE LASERWORT.

Plate 27. Fig. 2.

Character of the Species.

Laferpitium trilobum.

The Leaves are formed of many composit parts, cut in threes, and deeply divided.

Fig. 2. *a b.*

THIS is a Perennial, native of hilly grounds among trees, in most of the Southern parts of Europe: it grows to four feet high. The Leaves are of a very bright green; the Flowers are white; and the Seeds chefnut coloured, with pale ridges.

3. WEDGY LASERWORT.

Plate 27. Fig. 3.

Character of the Species.

Laferpitium Gallicum.

The Leaves are composed of broad wedgy parts, forked at the ends.

Fig. 3. *a b c.*

This is a Perennial, native of the South of France; a very singular Plant, scarce a foot and half in heighth, flowering in July and August. The Leaves are of a pale, and blueish green; the Stalk is tender, and ribbed; the Flowers are white; and the Seeds of a bright chefnut colour.

4. NARROW-LEAVED LASERWORT.

Plate 27. Fig. 4.

Character of the Species.

Laferpitium angustifolium.

The Leaves are composed of a multitude of lanced Leafits, without Footstalks.

Fig. 4. *a b.*

THIS is a Perennial, native of the South of Europe; a Plant of a yard high, flowering in June. The Leaves are very beautifully formed, and of a fine green colour; the Stalk is ribbed, and lightly hairy; the Flowers are white; and the Seeds of a fine pale brown.

5. EXPANDED LASERWORT.

Plate 28. Fig. 1.

Character of the Species.

Laferpitium prutenicum,

The Leaves spread to a vast breadth : the Leaflets are lanced, and the three extreme ones grow together at their bases.

Fig. 1. *abc*.

THIS is a Perennial, native of the Southern parts of Europe ; a Plant of four feet high, flowering in August. The Leaves are vast ; of a fine green, and elegantly expanded : the Stalk also is of a good green : the Flowers are white : the Seeds are brown, and clammy to the touch.

6. MOUNTAIN LASERWORT.

Plate 28. Fig. 2.

Character of the Species.

SESELI.

Laferpitium filer.

The Leaves are composed of broad Leaflets, which have Footstalks to them.

Fig. 2. *ab*.

THIS is a Perennial, native of Switzerland, and many other of the Northern parts of Europe ; a Plant of near a yard in height, flowering in June. The Stalk is slender, but firm : the Leaves are of a deep, but pleasing green : the Flowers are white : and the Seeds of a pale brown.

7. UNEVEN LASERWORT.

Plate 28. Fig. 3.

Character of the Species.

Laferpitium chironicum.

The Leaflets are uneven, and somewhat hearted at the base ; and have hairy Footstalks.

Fig. 3. *abc*.

THIS is a Perennial, native of the South of France ; a singular, though by no means beautiful Plant, flowering in June. The Leaves are vast, their colour a pale dead green, with a few long white hairs on them, and more upon their Footstalks. The Plant grows to a yard or more in height : its Stalk also is pale : the Flowers are yellow : and the Seeds are of a bright brown.

8. FINE-LEAVED LASERWORT.

Plate 28. Fig. 4.

Character of the Species.

Laferpitium peucedanoides.

The Leaflets are nearly linear, striated, and placed distinct.

Fig. 4. *abc*.

THIS is a Biennial, native of Germany ; a Plant of a yard high, singular in its aspect, but of no great beauty, flowering in July. The Leaves are of a pale, and dead looking green : the Stalk also is pale : the Flowers are white ; they stand in very broad Umbrells : the Seeds are brown, and of an aromatic, but coarse taste.

G E N U S



Broad leaved Lovage.

Twice ternate Lovage.

GENUS VIII.

L O V A G E.

Plate 29.

Character of the Genus.

The general Umbrell is irregularly convex, of many rays ; the partial Umbrell is of many rays, and flat : the general Mantle is composed of about seven unequal Films ; the partial of three or four flight Films, also irregular. The Flowers are uniform, each of five equal Petals, turned in at the tips, and hollowed their whole length. The Seeds are oblong, with five high ridges.

Plate 29. *a b c d e f*.

1. BROAD-TIPPED LOVAGE.

Plate 29. Fig. 1.

Character of the Species.

Ligusticum levisticum.

The Leaves are composed of many broad Leaflets, expanded and cut at the ends.

Fig. 1. *a b*.

THIS is a Perennial, native of France and Italy ; a Plant of four feet or more in height, flowering in July. The Leaves are of a strong, but not deep green : the Stalk is robust and ribbed : the Flowers are white, with a tinge of greenish yellow : the Seeds are of a bright brown, large, and of a very strong and singular aromatic taste.

2. TWICE-TERNATE LOVAGE.

Plate 29. Fig. 2.

Character of the Species.

SCOTCH LOVAGE.
Ligusticum Scoticum.

The Leaves are composed of threes, and those of threes again.

Fig. 2. *a b*.

THIS is a Perennial, native of Scotland, and other northern parts of Europe, within the influence of the sea : it grows to about two feet in height, and flowers in July. The Leaves are of a fine, fresh, and pleasant green : the Stalk is also green, and it is ribbed and tender : the Flowers are of a pale yellowish green : and the Seeds are brown ; they are not destitute of the Lovage flavour, but it is in a degree very far inferior to those of the preceding.

3. H E M -

3. HEMLOCK LOVAGE.

Plate 30. Fig. 1.

BASTARD HEMLOCK.
Ligusticum Peleponesiaceum.

Character of the Species.

The Leaves are composed of a multitude of narrow Leaflets, cut and disposed in a kind of winged or pinnatifid manner.

Fig. 1. *abc.*

THIS is a Biennial, native of Germany, Italy, and the Levant; a very specious Plant, of a yard or more in height, flowering in July. The Leaves are of a very beautiful green; they grow to a great size, and have, to an incurious eye, very much of the air of Hemlock Leaves: the Stalk is pale, firm, upright, and ribbed: the Flowers are of a good yellow: the Seeds are deep olive coloured. The resemblance of the Leaves of this Plant, to those of Hemlock, has, I am afraid, caused one of those strange errors, by which men are prevented sometimes from communicating real and useful discoveries.

4. PINNATIFID LOVAGE.

Plate 30. Fig. 2.

Ligusticum Austriacum.

Character of the Species.

The Leaves are composed of broad, lanced, indented, and decurrent Leaflets.

Fig. 2.

THIS is a Perennial, native of Germany and Switzerland; a Plant of three feet high, flowering in June. The Leaves are of a bright and pleasing green: the Stalk also is of a bright green, and high ribbed: the Flowers are white: and the Seeds of a very pale brown.

5. VARIOUS-LEAVED LOVAGE.

Plate 30. Fig. 3.

CORNISH LOVAGE.
Ligusticum Cornubiense.

Character of the Species.

The radical Leaves are composed of broad, simple, lanced Leaflets, in threes.

The upper Leaves are of many Leaflets, irregularly placed, and deeply cut.

Fig. 3. *abc.*

THIS is a Biennial, native of Cornwall, and other of the Western counties in England; a Plant of two feet and a half high, flowering in June. The Leaves are of a fresh green, often mixed with brown: the Stalk is slender, tough, and also pale green: the Flowers are white: and the Seeds are of a dusky brown.



*Pinnatifid
Lovage.*

Vol. 6 Hemlock Lovage.

Various leaved Lovage.



Broad leaved Water Parsnep

Jointflowering Water Parsnep



Vol. 6 Skirrel Waterparsnep.

Deep cut Water Parsnep.

GENUS IX.

WATER-PARSNEP.

Plate 31.

Character of the Genus.

The general Umbrell is loose and uneven; the partial Umbrells are flat and broad. The general Mantle is composed of many linear Films, which turn back; the partial Mantle of many small spread ones. The Flowers are uniform; each consists of five Petals, turned in at the points. The Seeds are roundish, swollen, and striated.

Plate 31. *o a b c d e f.*

1. BROAD-LEAVED WATER-PARSNEP.

Plate 31. Fig. 1.

GREAT WATER PARSNEP.

Sium latifolium.

Character of the Species.

The Leaves are winged; the Leaflets broad, lanced, and dented; the Umbrell crowns the summit of the Stalk.

Fig. 1. *a b c.*

THIS is a Perennial, native of our damp grounds by ditches, and often grows in water. The Leaves are large, and of a delicate green; the Stalks are thick and juicy, and of a fresh green also; the Flowers are white; and the Seeds are of a pale olive colour.

2. JOINT-FLOWERING WATER-PARSNEP.

Plate 31. Fig. 2.

Sium nodiflorum.

Character of the Species.

The Leaves are winged; the Umbrells stand close upon the Stalks, without Footstalks at all the joints.

Fig. 2. *a b c.*

THIS is a Perennial, native of our shallow brooks, where it spreads and increases without bounds. The Stalk is juicy, it lies upon the ground, and roots at the joints; the Leaves are of a fresh green; the Flowers are white; and the Seeds greenish.

3. SKIRRET WATER-PARSNEP.

Plate 31. Fig. 3.

SKIRRET.

Sium sisarum.

Character of the Species.

The Leaves are winged with lanced Leaflets; and toward the top are composed only of three parts.

Fig. 3. *a b c.*

THIS is a Perennial, native of the East, but long common in our gardens, where it is cultivated for its esculent root. The Leaves are of a yellowish green; the Stalk is pale yellowish, and two feet high; the Flowers are white; and the Seeds are brown.

4. DEEP-CUT WATER-PARSNEP.

Plate 31. Fig. 4.

NINSIN.

Sium Ninsi dictum.

Character of the Species.

The Leaves are winged; the Leaflets oval, and only three on the upper ones.

Fig. 4. *a b c.*

THIS is a Perennial, native of China and Japan; a Plant of two feet high, flowering in June. The Leaves are of a deep green; the Stalk is striated, and also of a deep, but fine green; the Flowers are white; and the Seeds brown. The roots of this are the Ninsi, not the Ginseng of the East.

5. HARSH WATER-PARSNEP.

Plate 32. Fig. 1.

Character of the Species.

Sium rigidum.

The Leaves are winged ; the Leaflets lanced, and indented only toward the end.

Fig. 1. *abc.*

THIS is a Perennial, native of Virginia ; a Plant of more than a yard in height, flowering in July. The Stalk is firm, and of a pale green ; the Leaves are of a very bright green, but hard to the touch ; the Flowers are white ; and the Seeds are of a dusky brown.

6. SICKLE-LEAVED WATER-PARSNEP.

Plate 32. Fig. 2.

Character of the Species.

Sium falcaria dictum.

The Leaflets are linear, deeply notched, placed in pairs, and decurrent.

Fig. 2. *abc.*

THIS is a Biennial, native of almost all the Northern parts of Europe, except England ; a Plant of very singular aspect, flowering in June. The Stalk is ribbed, and knotty at the joints, of a coarse green, branchy, and more than two feet high ; the Leaves are of a coarse green ; the Flowers are white ; and the Seeds of a rusty brown.

7. TWICE-WINGED WATER-PARSNEP.

Plate 32. Fig. 3.

Character of the Species.

Sium Græcum.

The Leaves are twice winged ; and the Leaflets broad and deeply cut.

Fig. 3. *abc.*

THIS is a Perennial, native of the Levant ; a Plant of near a yard in height, flowering in June. The Leaves are of a pale, and somewhat blueish green ; the Stalks are slender, and divide into many branches ; the Flowers are white ; and the Seeds pale brown.

8. YELLOW WATER-PARSNEP.

Plate 32. Fig. 4.

Character of the Species.

Sium Siculum.

The radical Leaves are composed each of three lanced Leaflets ; the others are twice winged, and deeply indented.

Fig. 4. *abc.*

THIS is a Biennial, native of Sicily ; a Plant of near a yard in height, flowering in August. The Leaves are of a strong and shining green ; the Stalks are of a deep green, firm, and branchy ; the Flowers are yellow ; and the Seeds of a very dusky brown.



Harsh water Parsnep.



Sickle leaved water Parsnep.



Twice winged water Parsnep.



Yellow water Parsnep.



*Fine leaved
Fennell Giant.*

*Blue green
Fennell Giant.*

Glossy Fennell Giant.

G E N U S X.

F E N N E L L - G I A N T.

Plate 33.

Character of the Genus.

The general Umbrell is deeply convex; the partial Umbrells are nearly globular. The general Mantle is composed of several weak and withered drooping Films; the partial Mantles are composed of a number of expanded short Films. The Flowers are uniform; each consists of five oblong ascendant Petals; the Seeds are elliptic, flat, and marked with three ridges.

Plate 33. *a b c d e f*.

1. FINE-LEAVED FENNELL-GIANT.

Plate 33. Fig. 1.

Character of the Species.

Ferula communis.

The Leaves are cut into a multitude of long, slender, thready parts.

Fig. 1. *a b c*.

THIS is a Perennial, native of the Southern parts of Europe; a tall, robust, and noble Plant, flowering in July. The Leaves are of a dark green, very large, and delicately divided in the manner of Fennell; the Stalk is round, very thick, ribbed, and five feet or more in height; the Flowers are yellow; and the Seeds are brown.

2. BLUE-GREEN FENNELL-GIANT.

Plate 33. Fig. 2.

Character of the Species.

Ferula Græca.

The Leaves are divided into many short, flat, linear Segments.

Fig. 2. *a b c*.

THIS is a Perennial, native of Italy and Sicily, and also of the Levant; a Plant of four feet high, flowering in August. The Leaves are of a blueish green; the Stalk is pale green, striated, and swollen at the joints; the Flowers are of a pale yellow; and the Seeds brown.

3. GLOSSY FENNELL-GIANT.

Plate 33. Fig. 3.

Character of the Species.

Ferula tingitana.

The Leaves are twice winged; the Leaflets have three dents at the end.

Fig. 3. *a b c*.

THIS is a Perennial, native of the Coast of Barbary, and also of Spain; a tall and very well looking Plant, flowering in July and August. The Leaves are vast, and of a fresh green, with a glossy surface; the Stalk is five feet high, and of a pale green; the Flowers are white, with a very slight tinge of yellowish or greenish; and the Seeds are brown.

4. B R O A D -

4. BROAD-LEAVED FENNEL-GIANT.

Plate 34. Fig. 1.

Character of the Species.

Ferula Ferulago dicta.

The Leaves are pinnatifid; the Leaflets narrow, flat, and cut into three parts at the extremity.

Fig. 1. *a b c.*

THIS is a Perennial, native of Sicily; a Plant of four feet high, and very robust, flowering in August. The Leaves are of a strong and fresh green; the Stalk is brown, ribbed, and thick; the Flowers are of a pale, but not unpleasing yellow; the Seeds are of a fine olive brown.

5. FILMY FENNEL-GIANT.

Plate 34. Fig. 2.

Character of the Species.

Ferula meioides.

The Leaves are formed of thready parts, and their Footstalks swell out into naked and hollowed Films at the base.

Fig. 2. *a b c.*

THIS is a Perennial, native of the Greek Islands; a Plant of a yard in height, with many branches, and innumerable Flowers, which blow in June. The Leaves are of a pale, and somewhat blueish green; the Stalk is ribbed, and tinged with red; the Flowers are of a pale straw colour; and the Seeds are of a dirty brown.

6. PALE FENNEL-GIANT.

Plate 34. Fig. 3.

Character of the Species.

Ferula Orientalis.

The Leaves are divided into innumerable, short, fine wavy parts.

Fig. 3. *a b c.*

THIS is a Perennial also, native of the Levant islands; a tall and stately Plant, flowering in July. The Stalk is thick, deeply ribbed, and more than four feet high; the Leaves are vast, and of a delicate pale green; the Flowers are yellow; and the Seeds of a deep olive colour, with an irregular tinge of brown.

2



Vol 6
Broad leaved
Fennell Giant

Filmy Fennell Giant

Pale
Fennell Giant



Vol. 6
Wingy Fennel Giant

Uneven-leaved Fennel Giant.

7. WINGY FENNEL-GIANT.

Plate 35. Fig. 1.

Character of the Species.

Ferula nodiflora.

The Leaflets are linear and undivided, and have filmy appendages at their bases.

Fig. 1. *a b c.*

THIS is a Perennial, native of Spain, and other of the Southern parts of Europe; a Plant of a yard high, flowering in May and June. The Leaves are of a bright and fresh green; the filmy appendages pale: the Stalk is ribbed and branchy: the Umbrells stand close: and their Flowers are white, with a tinge of yellow: the Seeds are large, and of a bright brown.

8. SHINING FENNEL-GIANT.

Plate 35. Fig. 2.

Character of the Species:

Ferula Canadensis.

The Leaves are composed of many narrow, and somewhat bent Leaflets, and have a shining and as it were polished surface.

Fig. 2. *a b c.*

THIS is a Perennial, native of North America; a Plant of four feet high, and of a very handsome aspect, flowering in August. The Leaves are of a strong and glossy green: the Stalk is robust, ribbed, and branched: the Flowers are white: and the Seeds are of a deep unpleasing brown.

9. UNEVEN-LEAVED FENNEL-GIANT.

Plate 35. Fig. 3.

Character of the Species.

THE ASSAFOETIDA PLANT.

Ferula Assafoetida.

The Leaflets are placed alternately on their Footstalks, and are deeply and unevenly cut in at the edges.

Fig. 3. *a b c.*

THIS is a Perennial, native of Persia; a tall and robust Plant, flowering in August. The Leaves are of a faint, but pleasing green: the Stalk is ribbed, pale, and branched: the Flowers are pale yellow: and the Seeds are brown.

ASSAFOETIDA is the hardened juice of this Plant: they obtain it from large roots which have not shot up to Stalks, by cutting off their crown, while yet in the ground.

U M B R E L L A S

With the general Mantle composed of many Films; and with irregular Flowers.

G E N U S I.

H E D G E - P A R S L E Y.

Plate 36.

Character of the Genus.

The general Umbrell is irregularly concave; the partial Umbrells are flat. The general Mantle is composed of long, narrow, weak Films, about the length of the rays; the partial Mantles are divided, and longer than the rays of those Umbrells. The Flowers are irregular; those of the centres have five equal Petals, hearted, and turning in; those of the edges have one large hearted Petal. The Seeds are roundish, and flattened with a raised and dented edge.

Plate 36. *abcdef*.

1. B R O A D - L E A V E D H E D G E - P A R S L E Y.

Plate 36. Fig. 1.

Character of the Species.

Tordylium Syriacum.

The Leaves are winged; the Leaflets broad and obtuse; the general Mantle longer than the rays.

Fig. 1. *abc*.

THIS is an Annual, native of Syria; a low Plant, flowering in June. The Leaves are of a pale green: the Stalk is ribbed, and a foot and half high: the Flowers are white: and the Seeds large and pale.

2. L A N C E D H E D G E - P A R S L E Y.

Plate 36. Fig. 2.

Character of the Species.

NARBONNE HARTWORT.

Tordylium officinale.

The Leaves are winged; and the Leaflets lanced and deeply dented.

Fig. 2. *ab*.

THIS is an Annual, native of France and Italy, and of some parts of England; as Somersetshire, and Wiltshire, besides Oxfordshire, where, 'tis said, it was sown. The Leaves are of a strong green: the Stalk is a foot and half high: the Flowers are white: and the Seeds deep brown.

3. D W A R F H E D G E - P A R S L E Y.

Plate 36. Fig. 3.

Character of the Species.

Tordylium apulum.

The Leaves are winged; the Leaflets oval, and few; the Stalk leans.

Fig. 3. *abc*.

THIS is an Annual, native of Italy; a Plant of six or eight inches high, flowering in July. The Leaves are of a strong green: the Stalk is tender: the Flowers are white: and the Seeds brown.

4. D E L I C A T E H E D G E - P A R S L E Y.

Plate 36. Fig. 4.

Character of the Species.

Bubon Macedonicum.

The Leaflets are winged, and deeply dented; the Umbrells are vastly numerous.

Fig. 4. *abc*.

THIS is a Biennial, native of Macedonia; a Plant of two feet high, flowering in August. The Leaves are of a deep green: the Stalks are ribbed, and vastly branched: the Flowers are white: and the Seeds are brown.



Vol. 6
Broad leaved Hedge Parsley.

Dwarf Hedge Parsley.

Delicate Hedge Parsley.

Lined
Hedge Parsley.



Great Hedge Parsley



Deepcut Hedge Parsley.



Long leaved
Hedge Parsley



Knotted
Hedge Parsley.

5. GREAT HEDGE-PARSLEY.

Plate 37. Fig. 1.

Character of the Species.

Tordylium maximum.

The Leaves are winged; the Leaflets lanced and saw'd; the partial Umbrells stand close.

Fig. 1. *a b c.*

THIS is a Biennial, native of Spain; a Plant of four feet high, flowering in June. The Leaves are of a fresh, but pale green: the Stalk is ribbed, and branched: the Flowers are white, but usually they have a very slight tinge of crimson: the Seeds are pale, and have a white edge.

6. DEEP-CUT HEDGE-PARSLEY.

Plate 37. Fig. 2.

Character of the Species.

Tordylium latifolium.

The Leaves are winged; the Leaflets are oblong, and deeply cut in at the edges.

Fig. 2. *a b.*

THIS is an Annual, native of Italy; a Plant of a yard high, flowering in June. The Stalk is firm, hairy, ribbed, and branched: the Leaves are of a bright, and very pleasant green: the Flowers have a delicate tinge of crimson: and the Seeds are olive-coloured.

7. LONG-LEAVED HEDGE-PARSLEY.

Plate 37. Fig. 3.

Character of the Species.

ROUGH HEDGE-PARSLEY.
Tordylium anthriscus dictum.

The Leaves are winged; the Leaflets very long, and pinnatifid.

Fig. 3. *a b.*

THIS is a Biennial, native of our corn fields and road sides; a Plant of two feet in height, flowering in July. The Stalk is slender, ribbed, and rough: the Leaves are of a dusky green: the Flowers are of a beautiful pale crimson: and the Seeds of a dark brown.

8. KNOTTED HEDGE-PARSLEY.

Plate 37. Fig. 4.

Character of the Species.

KNOTTY HEDGE-PARSLEY.
Tordylium nodosum.

The Umbrells stand close upon the joints or knots of the Stalk.

Fig. 4. *a b.*

THIS is an Annual, native of our corn fields, and other cultivated grounds; a low Plant, leaning on the ground, and flowering in June, July, and August. The Leaves are of a brownish green: the Stalk is green, rough, and slender: the Flowers are of a bright crimson: and the Seeds are olive-coloured.

GENUS II.

MILK PARSLEY.

Plate 38.

Character of the Genus.

The general Umbrell is flat, broad, and slightly convex; the partial Umbrells are broad, even, and flat. The general Mantle is composed of several narrow, lanced Films, which turn back; the partial Mantle is composed of many narrow Films, and spread open. The Flowers are uniform, each consists of five Petals, one of which is larger than the rest, and hearted: the Seeds are elliptic, flat, and striated, with a filmy edge.

Plate 38. *o a b c d e f*.

1. BROAD-LEAVED MILK-PARSLEY.

Plate 38. Fig. 1.

Character of the Species.

Selinum sylvestre.

The Leaves are doubly winged; the Leaflets are oval, and deep cut at the edges.

Fig. 1. *a b c*.

THIS is a Perennial, native of the South of France, and many parts of Germany; a Plant of two feet and a half in height, flowering in July. The Stalk is ribbed and pale: the Leaves are of a fine fresh green: the Flowers are white: and the Seeds pale.

2. NARROW-LEAVED MILK-PARSLEY.

Plate 38. Fig. 2.

Character of the Species.

Selinum palustre.

The Leaves are doubly winged; and the Leaflets narrow and indented.

Fig. 2. *a b*.

THIS is a Perennial, native of the wet grounds in France, and many other parts of Europe; a Plant of two feet and a half in height, flowering in July. The Stalk is pale: the Leaves are of a strong, and not unpleasing green: the Flowers are white: and the Seeds are of a pale brown.

3. CLUSTERY MILK-PARSLEY.

Plate 38. Fig. 3.

Character of the Species.

Selinum monicri.

The Umbrells are very thick set with Flowers; the Leaves are cut into narrow Segments.

Fig. 3. *a b*.

THIS is a Biennial, native of the Southern parts of Europe; a Plant of two feet and a half in height, flowering in August. The Stalk is pale green: the Leaves are of a faint, but not unpleasing green: the Flowers are white: and the Seeds are brown.

G E N U S



Generic Character.

Broad leaved
Milk Parsley.
Vol. 6

Narrow leaved
Milk Parsley

Clustery Milk Parsley



Generic
Character

Pinnatifid Cow Parsnep.

Pale Cow Parsnep.

GENUS III.

COW-PARSNEP.

Plate 39.

Character of the Genus.

The general Umbrell is vast, irregular, and nearly flat; the partial Umbrells are flat, and nearly even. The general Mantle is of many subulated Films, loosely fixed, and soon fading, partially or entirely; the partial Mantles are divided, and formed of several linear Films, of unequal lengths. The Flowers are of two kinds; those in the centres of the Umbrells are of five equal Petals, turned in and hooked; those of the verge have the outer Petals largest, and deep cut in. The Seeds are large, oval, flattened, and have a filmy rim.

Plate 39. *a b c d e f*.

1. PINNATIFID COW-PARSNEP.

Plate 39. Fig. 1.

Character of the Species.

COW-PARSNEP.
Heracleum Sphondylium.

The Leaves are simply winged; the Leaflets vast, and deeply pinnatifid.

Fig. 1. *a b*.

THIS is a Biennial, native of our pastures and waste grounds; a robust Plant of five feet high, flowering in June. The Leaves are of a deep and coarse brownish green: The Stalk is pale green, thick, and ribbed: the Flowers are white, and of an ill smell; they scent the roads sometimes for a great way, by growing in the hedges: the Seeds are large and brown.

2. PALE COW-PARSNEP.

Plate 39. Fig. 2.

Character of the Species.

Sphondylium Sibericum.

The Leaves are doubly winged, with two distinct, and three connected Leaflets.

Fig. 2. *a b*.

THIS is a Perennial, native of Siberia; a Plant of six feet high, flowering in August. The Leaves are vast; their colour a pale green: the Stalk is thick, furrowed, and yellowish: the Flowers are white, with a tinge of yellow: and the Seeds are of a pale brown.

THERE are as many Plants of Siberia, as there are of America, that come very near to certain Species which we have in England, but cannot be considered as the same; this is one. It differs from our Cow-Parfnep vastly in aspect, but little in real character; we see it so in the American *Circæa*, *Polemonium*, and some others. The common *Xanthium* of all the earth is alike; these seem to differ, though we can scarce say how; the aspect is unlike, but the more we seek the marks of difference, the more they vanish. It is a subject to be deeply thought of, but this is not the place.

3. HARSH COW-PARSNEP.

Plate 40. Fig. 1.

Character of the Species.

Heracleum panaces.

The Leaves are simply winged; the Leaflets are cut into five serrated and sharp pointed divisions.

Fig. 1. *a b c.*

THIS is a Biennial, native of the Apennines, and of Siberia; a Plant of four feet high, flowering in June. The Leaves are of a pale, and very delicate green: the Stalk is thick and harsh, and sends out many branches: the Flowers are white: and the Seeds of a very pale olive colour.

4. DWARF COW-PARSNEP.

Plate 40. Fig. 2.

Character of the Species.

Heracleum Aufriacum.

The Leaves are simply winged, with oval, hairy, dented Leaflets.

Fig. 2. *a b c d.*

THIS is a Biennial, native of Germany and France; a low Plant, with a vast head of Flowers, blowing in July. The Leaves are of a pale, and somewhat blueish green: the Stalk is pale, ribbed, and not above ten inches high: the Flowers are white: and the Seeds of a deep and dusky chesnut colour.

5. ENTIRE-LEAVED COW-PARSNEP.

Plate 40. Fig. 3.

Character of the Species.

Heracleum Alpinum.

The Leaves are simple and serrated, and marked with two deep dents.

Fig. 3. *a b c.*

THIS is a Biennial, native of the Alps, and of most of the mountainous parts of Europe; a Plant of four feet high, flowering in June. The Leaves are of a fine fresh green: the Stalk is also green, thick, and deeply channelled: the Flowers are white: and the Seeds are of a pale, but dirty looking brown.

THE Leaves of this Species look singularly among the umbrella'd Plants, by being large, but simple; it is easy to see, however, that the two divisions which are always visible in the Leaf, tend to those deeper separations which characterise the generality of the umbrella'd Plants.

COWPARSNEP.



Harsh

Vol. 6 Cow Parsnep.

Dwarf Cow Parsnep

Entire leaved Cow Parsnep



Pipy Water Dropwort.

Multifid Water Dropwort

G E N U S IV.

W A T E R D R O P W O R T.

Plate 41.

Character of the Genus.

The general Umbrell is lightly and irregularly convex, and has but a few rays; the partial Umbrells are clustery, of many very short rays. The general Mantle is of many narrow Films, spread like a star; the partial Mantles are of many very short Films, standing out. The Flowers are of two kinds; those in the centres of the Umbrells are of five equal Petals, hearted, and turned in at the points; those at the verge, of five unequal Petals, one larger than the rest. The Seeds are oval, flattened, and striated, with a dented crown.

Plate 41. *o a b c d e f.*

1. P I P Y W A T E R D R O P W O R T.

Plate 41. Fig. 1.

Character of the Species.

Oenanthe fistulosa.

The Leaves are winged with slender, hollow, pipy Segments. Fig. 1. *a b.*

THIS is a Perennial, native of our wet grounds, and common in many counties, even in the water, where it is shallow, and has a deep muddy bottom; flowering in July. The Leaves and Stalk are both of a pale, and somewhat greyish green: the Stalk is hollow, tender, ribbed, and a foot and half high: the Flowers are white: and the Seeds of a pale brown.

2. M U L T I F I D W A T E R D R O P W O R T.

Plate 41. Fig. 2.

Character of the Species.

HEMLOCK DROPWORT.

Oenanthe crocata.

The Leaves are twice winged, and the Leaflets are obtuse, equal, and cut into several parts. Fig. 2. *a b c.*

THIS is a Perennial, native of our wet grounds, and river sides; of the Thames, particularly, both above and below London; a Plant of four feet high, flowering in July. The Leaves are of a faint green: the Stalk is thick, ribbed, and irregularly branched: the Flowers are white, with a slight dash of yellowish or greenish: and the Seeds are of a deep and shining brown.

THE Plant should be well known, for it is a horrible poison: many have perished by it, both in England and other parts of Europe. When cut, it yields a yellow juice.

3. PROLIFEROUS DROPWORT.

Plate 42. Fig. 1.

Character of the Species.

Oenanthe prolifera.

The outer spokes of the partial Umbrells are much longer than the central, and are branchy, with an appearance of proliferation. Fig. 1. a b c.

THIS is a Perennial, native of Italy and Sicily; a very singular Plant, and not without beauty. The Leaves are of a faint, but pleasing green: the Stalk is pale, ribbed, and greyish; the height about two feet: the Flowers are white, they blow in May: the Seeds are of a pale olive brown.

4. SWOLN-SEEDED WATER DROPWORT.

Plate 42. Fig. 2.

Character of the Species.

Oenanthe globosa.

The pairs of Seeds form a kind of swoln spherical body. Fig. 2. a b.

THIS is a Biennial, native of Portugal; a Plant of two feet high, flowering in May and June. The Leaves are of a pale, but pleasing green: the Stalk also is pale, ribbed, and branchy: the Flowers are white: and the Seeds pale brown.

5. VARIOUS-LEAVED WATER DROPWORT.

Plate 42. Fig. 3.

Character of the Species.

Oenanthe pimpinelloides.

The radical Leaves are oval, and deeply cut in at the edges; those on the Stalk are long, simple, and linear. Fig. 3. a b.

THIS is a Perennial, native of the South of France, and other parts of Europe, in wet ground, flowering in August. The lower Leaves are of a yellowish green: those on the Stalk are pale, but rather blueish: the Stalk is pale, slender, ribbed, and branched: the Flowers are white: and the Seeds are of a bright brown.

UMBRELL-

WATER DROPWORT

2



Proliferous Water Dropwort.

Various leaved Water Dropwort

Swollen Seeded Water Dropwort.



Generic Character.

Delicate Hairweed



Generic Character.

Globe-seeded Coriander.

Double headed Coriander

U M B R E L L A S,
With the Mantle composed of Films.
F A M I L Y the S E C O N D,
Having only partial Mantles.

O R D E R I,
With the partial Mantle composed of three Films.
Of this O R D E R there is but one known G E N U S.

G E N U S I.
C O R I A N D E R.

Plate 43.—1.

Character of the Genus.

The general Umbrell consists of few rays, and is irregularly flattened; the partial Umbrells are clustery, with many rays, and flattened, but uneven on the surface. The general Mantle is utterly wanting, as in all the succeeding Plants; the partial Mantles consist each of three linear Films, which all turn outwards. The Flowers are of two kinds; those of the centre are regular, of five equal Petals turned in at the points; those of the verge are of five Petals, one of which is much larger than the rest; the Seeds are hemispheric and hollow.

Plate 43.—1. *o a b c d e f*.

1. G L O B E - S E E D E D C O R I A N D E R.

Plate 43. Fig. 1.

Character of the Species.

Coriandrum fativum.

The two Seeds which follow each Flower join by flat surfaces, so as to form a round body.

Fig. 1. *a*.

THIS is an Annual, native of Italy; a Plant of two feet high, flowering in June. The Leaves are of a bright green: the Stalk is ribbed and branchy: the Flowers are white: and the Seeds of a very pale brown. This is the Plant whose Seeds we use.

2. D O U B L E - H E A D E D C O R I A N D E R.

Plate 43. Fig. 2.

Character of the Species.

Coriandrum testiculatum.

The two Seeds following the Flower are more distantly united, like two globes.

Fig. 2. *a b c*.

THIS is an Annual, native of corn fields in France; a Plant of a foot and half high, flowering in June. The Leaves are of a faint green: the Stalk is pale, ribbed, and branched: the Flowers are white: and the Seeds of a pale brown.

G E N U S II.
H A I R W E E D.

Plate 43.—2.

Character of the Genus.

The general Umbrell is convex; the partial Umbrells are flat and radiated. The partial Mantles are composed each of three linear Films, some of which are apt to split and give an appearance of more. The Flowers are of two kinds, the central ones have five equal Petals, turned in and hearted; those of the verge have one Petal much larger than the rest. The Seeds are of two kinds, those following the central Flowers are hemispherical and naked, those at the edge flat, and edged with a membrane.

Plate 43.—2. *o a b c d e f*.

1. D E L I C A T E H A I R W E E D.

Plate 43. Fig. 2.

Character of the Species.

Hasselquistia Ægyptiaca.

The Leaves are winged, and their Leaflets deeply pinnatifid.

Fig. 2. *a b*.

THIS is an Annual, native of Ægypt; a Plant of two feet and a half high, flowering in July. The Leaves are of a deep, but somewhat blueish green: the Stalk is covered with a few very singular white hairs: the Flowers are white: and the Seeds brown.

O R D E R II.

With the partial Mantles composed of five Films.

G E N U S I.

F O O L S P A R S L E Y.

Plate 44.—1.

Character of the Genus.

The general Umbrell is irregularly hollowed ; the partial Umbrells are flat. The partial Mantle is composed of five very long linear Leaves, thrown outwards. The Flowers are nearly regular; each is of five Petals, hearted, and turned in at the points, and almost all of a size. The Seeds are roundish, and partly striated, partly plain.

Plate 44.—1. *o a b c d e f*.

1. B E A R D E D F O O L S P A R S L E Y.

Plate 44. Fig. 1.

Character of the Species.

Æthusa Cynapium dicta.

The Leaves are doubly winged ; the partial Mantles hang like long beards.

Fig. 1. *a b*.

THIS is an Annual, a weed too common in our gardens, growing to a yard in height, and flowering in June. The Leaves are of a fresh and pleasing green : the Stalks are paler : the Flowers are white : and the Seeds of an olive brown.

G E N U S II.

M A S T E R W O R T.

Plate 44.—2.

Character of the Genus.

The general Umbrell is spread loose, and nearly flat; the partial Umbrells are irregular, and a little hollowed. The partial Mantles are composed of five very narrow Films, which sometimes split, and seem more numerous. The Flowers are uniform; each is composed of five Petals, hearted, and turned in. The Seeds are oval, with a filmy edge, and two furrows.

Plate 44.—2. *o a b c d e f*.

1. T E R N A T E M A S T E R W O R T.

Character of the Species.

Imperatoria Ostruthium dicta.

The Leaves are composed of three principal parts, each cut into three again.

Fig. 2. *a b*.

This is a Perennial, native of shady ground in Germany, and some parts of England, but I think, from Seeds scattered from gardens: it grows to two feet high, and flowers in August. The Leaves are of a faint green : the Stalk is ribbed : the Flowers are white: and the Seeds are brown. The Root is a great cordial and sudorific.



Generic Character



Bearded Fools Parsley.

Ternate Masterwort.



U M B R E L L A ' D P L A N T S,
With only partial Mantles, and with irregular Flowers.

G E N U S I.

S H E P H E R D ' s N E E D L E.

Plate 45.

Character of the Genus.

The general Umbrell is flat and loose; the partial Umbrells have many rays, and are also flat. The partial Mantles have each five short, slender Films. The Flowers are all of a kind, each has five Petals, hearted, and turned in at the end; and of these one is larger than the others. The Seeds are oblong, with a broad base, and a long slender point.

Plate 45. *o a b c d e f*.

1. S W E E T S H E P H E R D ' s N E E D L E.

Plate 45. Fig. 1.

SWEET CHERVILL.

Scandix odorata.

Character of the Species.

The Leaves are doubly winged; the Seeds are furrowed, and raised in high ridges.

Fig. 1. *a b*.

THIS is a Perennial, native of Germany and Italy; a very beautiful Plant of four feet high, flowering in May. The Leaves are of a pale bright green: the Stalk is thick, ribbed, and pale: the Flowers are white: and the Seeds of a dark brown.

2. C O R N S H E P H E R D ' s N E E D L E.

Plate 45. Fig. 2.

Scandix Pecten Veneris dicta.

Character of the Species.

The Seeds are smooth, and have very long points; the Leaves are irregularly double winged.

Fig. 2. *a b*.

THIS is an Annual, native of our corn fields; a small Plant, flowering in June. The Leaves are of a dark and dusky green: the Stalks are brown, about eight inches high, and branched: the Flowers are white: and the Seeds dark brown.

3. P A L E S H E P H E R D ' s N E E D L E.

Plate 45. Fig. 3.

Scandix Chærophyllum dicta.

Character of the Species.

The Leaves are doubly winged; the Seeds are oval, but run into a short point at the end.

Fig. 3. *a b c*.

THIS is an Annual, native of the corn fields and gardens of Italy and France; a spreading Plant, of a yard high, flowering in June. The Leaves are of a faint pale green: the Stalk is also pale, and ribbed with frequent joints: the Flowers are white: and the Seeds are of a pale olive brown, delicate both in shape and colour.

4. R U G G E D - S E E D E D S H E P H E R D ' s N E E D L E.

Plate 45. Fig. 4.

Scandix Anthriscus dicta.

Character of the Species.

The Seeds are oval, rugged, and hairy; the Stalk is smooth and equal.

Fig. 4. *a b c*.

THIS is an Annual, native of our waste grounds, and banks of fields; a Plant of two feet and a half high, flowering in June. The Leaves are of a fresh green: the Stalks are pale: the Flowers are white: and the Seeds are brown.

IT would seem at first view, best to have kept the long-seeded Plants of this Genus together, and separated from those called Chervills, which have less extended points to their Seeds; but this is a difference only of more or less, and therefore affords no real distinction: the Flowers are more particular, and place them thus.

5. E Y E -

5. EYE-LASHED SHEPHERD'S NEEDLE.

Plate 46. Fig. 1.

Character of the Species.

Scandix Australis.

The Seeds have long beaks, with stiff, short hairs, like eye-lashes; the Leaves are irregularly double winged; the Stalks are smooth. Fig. 1. *a b c.*

THIS is an Annual, native of the South of Europe, and of the Greek Islands; a low and weak Plant, flowering in June. The Leaves are of a dull, and somewhat blueish green: the Stalk is smooth, pale, and about ten inches high: the Flowers are white: and the Seeds are of a dirty brown.

6. KNOTTY SHEPHERD'S NEEDLE.

Plate 46. Fig. 2.

Character of the Species.

Scandix nodosa.

The Stalk is harsh, and swells out into lumps at the joints; the Seeds are hairy and cylindric. Fig. 2. *a b c.*

THIS is an Annual, native of Sicily; a Plant of two feet and a half in height, flowering in July. The Leaves are of a fresh and strong green: the Stalk is pale, and is covered with long harsh hairs: the Flowers are white: the Seeds are brown, and are rough and harsh to the touch.

7. GREAT-FLOWERED SHEPHERD'S NEEDLE.

Plate 46. Fig. 3.

Character of the Species.

Scandix grandiflora.

The Seeds stand upon hairy Footstalks; the Leaves are doubly winged. Fig. 3. *a b.*

THIS is an Annual, native of the Levant; a low Plant, flowering in July. The Leaves are of a fresh and delicate green: the Stalks are branched, but not more than ten inches in height: the Flowers are white: and the Seeds are of a pale brown. The rays of the partial Umbrells are hairy, in this Species, but it is not much seen till the Plant is in Seed, when they appear very conspicuously, supporting the Seeds.

8. THRICE-WINGED SHEPHERD'S NEEDLE.

Plate 46. Fig. 4.

Character of the Species.

Scandix procumbens.

The Seeds are oval, with a short point; the Leaves are decompose, or thrice winged. Fig. 4. *a b.*

THIS is a Biennial, native of Virginia; a Plant of near a yard in height, flowering in July and August. The Leaves are of a faint green: the Stalk is ribbed and branchy: the Flowers are white: and the Seeds deep brown.

UMBRELL-



*Eyelashd
Shepherd's Needle*

Knotty Shepherd's Needle



*Great-flowered Shep
herds Needle.*

Thrice-winged Shepherd's Needle.



Generic
Character

Fernate
Water Hemlock

Soboliferous
Water Hemlock.

Prickly Water Hemlock.

UMBRELLA'D PLANTS,

With only partial Mantles.

ORDER III.

Having the Mantles composed of many Films, with regular Flowers.

GENUS I.

WATER HEMLOCK.

Plate 47.

Character of the Genus.

The general Umbrell is rounded, and has many rays: the partial Umbrells are also rounded, and of many very slender rays. The partial Mantles are of many very slender Films, like bristles. The Flowers are uniform and regular; each consists of five oval, and nearly equal Petals, turned in at the points: the Seeds are oval and striated.

Plate 47. *o a b c d e f*.

1. TERNATE WATER HEMLOCK.

Plate 47. Fig. 1.

POISONOUS HEMLOCK.

Character of the Species.

Cicuta virofa.

The Leaves are divided into lanced Leaflets, in general in a ternate manner: the Umbrells have also a Leaf at the insertion of their Footstalks.

Fig. 1. *a b*.

THIS is a Perennial, native of our pond sides, but, thanks to Providence, not very common: it grows to a yard high, with many branches. The Leaves are of a faint green: the Stalk is branched, ribbed, and brownish: the Flowers have a deep tinge of a dead or greenish yellow: the Seeds are brown.

THIS Plant should be destroyed wherever it is seen; many have lost their lives by it.

2. SOBOLIFEROUS WATER HEMLOCK.

Plate 47. Fig. 2.

Character of the Species.

Cicuta bulbifera.

The Leaves are cut into fine thready parts, and there are little growing lumps in the bosoms of the Leaves.

Fig. 2. *a b*.

THIS is a Perennial, native of Virginia; a Plant of two feet and a half in height, flowering in August. The Leaves are of a pale green: the Stalk is ribbed and branchy: the Flowers are white: and the Seeds of a pale brown.

3. PRICKLY WATER HEMLOCK.

Plate 47. Fig. 3.

Character of the Species.

Cicuta maculata.

The Leaves are doubly winged: the Leaflets lanced, and notched, with hard brown edges.

Fig. 3. *a b*.

THIS is a Perennial, native of Virginia; a Plant of four feet high, flowering in September. The Leaves are of a fresh green, but their edges brown: the Stalk is ribbed, and sometimes stained or spotted with brown: the Flowers are white: the Seeds are of a yellowish brown, and of a strong disagreeable smell.

G E N U S II.

S A X I F R A G E.

Plate 48.

Character of the Genus.

The general Umbrell is irregularly flattened ; the partial Umbrells are very clustery, rounded, and short ray'd. The partial Mantles are composed of numerous linear Films, of the full length of the rays. The Flowers are uniform ; each is composed of five Petals, nearly equal in size, turned in, and a little hearted at the points. The Seeds are oval, and deeply striated.

Plate 48. *a b c d e f*.

1. D R O O P I N G S A X I F R A G E.

Plate 48. Fig. 1.

Character of the Species.

Seseli pimpinelloides.

The Stalk is weak, and leans upon the ground : the Umbrells droop while in bud.

Fig. 1. *a b*.

THIS is a Perennial, native of Spain and Italy ; a Plant of about a foot high, flowering in June. The Stalk is green, ribbed, and not much branched : the Leaves are of a fresh green, but have a brown Film at their base : the Flowers are white : and the Seeds of a faint and pale brown.

2. S H O R T - C U T S A X I F R A G E.

Plate 48. Fig. 2.

Character of the Species.

Seseli montanum.

The Leaves are cut into multitudes of short, pointed, and, as it were, split parts.

Fig. 2. *a b*.

THIS is a Perennial, native of the hilly grounds in Italy, and in the South of France ; a Plant of two feet and a half high, flowering in June. The Leaves are of a strong, and very pleasant green : the Stalks are thick, and very deeply furrowed : the Flowers are white, with a delicate blush of crimson : the Seeds are small, and of a dirty brown.

3. B L U E S A X I F R A G E.

Plate 48. Fig. 3.

Character of the Species.

Seseli glaucum.

The Leaves are cut into slender thready Segments, and are harsh to the touch.

Fig. 3. *a b*.

THIS is a Perennial, native of France, and of several parts of Germany ; a tall and stately Plant, flowering in July. The Leaves are finely divided, and of a beautiful blueish green : the Stalk is pale also, and blueish : the Flowers are white, with a blush of crimson, which is very fresh upon them when in bud, but grows fainter as they open : the Seeds are of a pale brown.

4. P E T T Y



Short cut Saxifrage
Vol. 6

Blue Saxifrage.



Petty Saxifrage.



Annual Saxifrage



Hard stalked Saxifrage.

4. PETTY SAXIFRAGE.

Plate 49. Fig. 1.

Character of the Species.

Seseli pumilum.

The Leaves are cut into many small, slender, fleshy parts, which are divided into twos and threes.

Fig. 1. *a b c.*

THIS is a Perennial, native of France and Germany; a Plant of a foot and half high, flowering in June. The Leaves are of a strong green, but with a little tinge of yellowish: the Stalk is green, ribbed, and slightly branched: the Flowers are white: and the Seeds are small, and of a dirty brown.

5. ANNUAL SAXIFRAGE.

Plate 49. Fig. 2.

Character of the Species.

Seseli annuum.

The Leaves are cut into numerous, short, multifid Segments; and their Footstalks swell out, and have vast hollowed Films at their base.

Fig. 2. *a b c.*

THIS is an Annual, native of France; a Plant of two feet and a half high, flowering in August. The Leaves are of a faint green, with somewhat of a blueish tinge: the Flowers are white: and the Seeds of a pale brown.

6. NAKED-STALKED SAXIFRAGE.

Plate 49. Fig. 3.

Character of the Species.

Seseli ammoides.

The Stalk is weak: the Leaves are cut into fine thready Segments: and their Footstalks rise naked from the main Stem.

Fig. 3. *a b c.*

THIS is an Annual, native of Portugal; a Plant of little more than a foot in height, flowering in August. The Leaves are delicately divided, and are of a fresh, but somewhat blueish green: the Stalk is green, slender, and weak: the Flowers are white: and the Seeds are of a pale brown.

7. HARD-STALKED SAXIFRAGE.

Plate 49. Fig. 4.

Character of the Species.

Seseli tortuosum.

The Stalk is almost woody, flattened, and often curled or twisted: the Leaves are formed of multitudes of fine slender parts.

Fig. 4. *a b c.*

THIS is a Perennial, common throughout the Southern parts of Europe; a Plant of robust aspect, and more than a yard in height, flowering in July. The Leaves are of a somewhat yellowish green: the Stalks are very deeply ribbed, and of the same green with the Leaves: the Flowers are white: and the Seeds are brown.

8. TWICE-WINGED SAXIFRAGE.

Plate 50. Fig. 1.

Character of the Species.

Seseli carvifolium.

The Leaves are twice winged, with narrow, ferrated, sharp-pointed Leaflets.
Fig. 1. a b.

THIS is a Biennial, native of Germany and Switzerland; a Plant of two feet and a half in height, flowering in July. The Leaves are of a faint, but not unpleasing green: the Stalk is of a pale green with high ribs: the Flowers are white, with a very slight blush of a dull crimson: the Seeds are pale brown.

9. BEARDED SAXIFRAGE.

Plate 50. Fig. 2.

Character of the Species:

Seseli Pyrenaicum.

The Leaves are twice winged, with slender, but somewhat wedgy Segments.
Fig. 2. a b.

THIS is a Perennial, native of the Pyrenees, and several parts of Germany; a Plant of little more than a foot in height, flowering in June and July. The Leaves are of a faint, but pleasing green: the Stalk is lightly ribbed, and branched: the Flowers are white: but the Mantles being long, they seem surrounded by a kind of green beards: the Seeds are numerous, small, and brown.

10. FORKED SAXIFRAGE.

Plate 50. Fig. 3.

Character of the Species.

Seseli Saxifragum.

The Stalk is weak, slender, and forked: the Leaflets are lanced, narrow, dented, and placed in threes.
Fig. 3. a b c.

THIS is a Biennial, native of Switzerland; a small Plant, but singular in its aspect, flowering in June. The Stalk is slender, branched, and lightly ribbed; its colour a pale green: the Leaves also are of a pale green: the Flowers are white: and the Seeds of a deep and dusky brown.

UMBREL-

3



Bearded
Saxifrage.

Twice winged
Saxifrage.

Forked Saxifrage.



Generic Character.

Water Edgeweed.

Mountain Edgeweed.

U M B R E L L A ' D P L A N T S,

With only partial Mantles; and with irregular Flowers.

G E N U S I,

E D G E W E E D.

Plate 51.

Character of the Genus.

The general Umbrell is irregularly convex, and formed of many rays; the partial Umbrells are rounded and clustery. The partial Mantles have each five narrow sharp-pointed Films, of the length of the partial rays. The Flowers are composed each of five pointed Petals, turned in, and a little nipped, one being only a little larger than the others. The Seeds are oval and smooth, and are crowned with a singular dented edge, which is the remain of the Cup.

Plate 51. a b c d e f.

1. W A T E R E D G E W E E D.

Plate 51. Fig. 1.

NEAT WATER HEMLOCK.

Phellandrium Aquaticum.

Character of the Species.

The Leaves are twice winged, and the Stalk is branched and leafy.

Fig. 1. a b.

THIS is an Annual, native of our waters, as well stagnant as running; a coarse but singular Plant, of near a yard high, flowering in August. The Stalk is pale and ribbed, very thick, and bent from joint to joint: the Leaves are very large, and of a pale green: the Flowers are white: and the Seeds are brown.

2. M O U N T A I N E D G E W E E D.

Plate 51. Fig. 2.

Phellandrium mutellinum.

Character of the Species.

The Leaves are split into long, slender, forked divisions; the Stalk is simple and leafless; or nearly so.

Fig. 2. a b c.

THIS is a Perennial, native of Switzerland, and some parts of Germany; a slight and low Plant, flowering in July. The Leaves are of a faint green: the Stalk is pale, and usually simple and naked, destitute of Leaf or Branch, though sometimes a single Leaf or a side shoot rise from it; it seldom exceeds a foot in height: the Flowers are white, with a blush of crimson: the Seeds are brown. They agree with those of the preceding kind in the dented edge, and the Genus is named from that particular.

G E N U S II.

3 T C H E R V I L L.

Plate 52.

Character of the Genus.

The general Umbrell is expanded, and irregularly and but slightly convex; the partial Umbrells are rounded, clustery, and of very many rays. The partial Mantles are composed each of several lanced, hollowed Films, which turn down, and are equal in length to the rays. The Flowers consist each of five Petals, which are hearted and turn in, and two of them are larger than the others. The Seeds are oblong, and grow slender toward their tops.

Plate 52. a b c d e f.

1. S M O O T H C H E R V I L L.

Plate 52. Fig. 1.

Character of the Species.

Chærophyllum sylvestre.

The Leaves are doubly winged, with close-set lanced Leaflets; the Stalk is smooth and even.

Fig. 1. a b c.

THIS is a Perennial, native of our waste grounds; a Plant of three feet high, flowering in June. The Leaves are of a very pleasant, though pale green: the Stalk also is pale: the Flowers are white: and the Seeds are of a pale brown.

2. K N O T T Y C H E R V I L L.

Plate 52. Fig. 2.

Character of the Species.

Chærophyllum bulbosum.

The Stalk is smooth, and swells into great knots at the joints: the Leaves are doubly winged, with lanced, remote Leaflets.

Fig. 2. a b c.

THIS is a Biennial, native of Germany, France, and Switzerland; a Plant no way inviting to the look, and of a disagreeable smell, flowering in July. The Stalk is pale, and two feet and a half high: the Flowers are white: and the Seeds are brown.

3. R U G G E D C H E R V I L L.

Plate 52. Fig. 3.

Character of the Species.

Chærophyllum temulum.

The Leaves are doubly winged, with broad Segments; the Stalk is hairy and jointed.

Fig. 3. a b c.

THIS is an Annual, native of our waste grounds; a leafy Plant, of two feet and a half high, flowering in June. The Leaves are of a pale green: the Stalk is striated with brown, covered with long loose hairs, and swollen at the joints: the Flowers are white: and the Seeds are brown.

*** The first Species rises early in Spring, and is often ignorantly or dishonestly mixed in fallads. 'Tis a suspected Plant, and I have seen sudden illness from these fallads, in which there appeared no other doubtful ingredient.





4. HAIRY CHERVILL.

Plate 53. Fig. 1.

Character of the Species.

Chærophyllum hirsutum.

The Leaves are cut into large, broad, sharp-pointed Leaflets, deeply serrated ; the Stalk is hairy and even, without swelling at the joints. Fig. 1. *a b c.*

THIS is a Perennial, native of France and Switzerland ; a singular looking Plant, of two feet and a half high, flowering in July. The Leaves are naturally of a strong, good green, but they usually become brown very soon from the Sun. The Stalk is firm, green, tinged with brown, and bends a little from joint to joint : the Flowers are pure white : and the Seeds are brown.

5. FRAGRANT CHERVILL.

Plate 53. Fig. 2.

Character of the Species.

Chærophyllum aromaticum.

The Leaves are doubly winged, with oval dented Leaflets ; the Stalk is even. Fig. 2. *ab.*

THIS is a Perennial, native of Germany ; a handsome and sweet Plant, of a yard high, flowering in June. The Leaves are of a bright, but not strong green : the Stalks are pale, ribbed, and branchy : the Flowers are white : and the Seeds are of a pale brown.

6. SHRUBBY CHERVILL.

Plate 53. Fig. 3.

Character of the Species.

Chærophyllum arborescens.

The Leaves are thrice winged ; and the Stem is woody. Fig. 3. *abc.*

THIS is a Perennial, native of Virginia, and other parts of North America ; a woody Plant, very singular in its aspect, flowering in August. The Stem is covered with a brown, rough rind : the young Shoots are green : the Leaves are large, and of a pleasant green : the Flowers are white : and the Seeds are brown.

UMBRELL-

UMBRELLAS.

TRIBE III.

Those which have no Mantle, either general or partial.

ORDER I.

With the Umbrell loose and of few rays.

GENUS I.

CARAWAY.

Plate 54.

Character of the Genus.

The general Umbrell is uneven, with a few long, naked rays; the partial Umbrells are clustery, short, and nearly flat. The Flowers are regular and uniform, each consists of five Petals, which turn in at the points, and are rounded, and a little hearted there. The Seeds are of an oblong oval form, and striated.

Of this GENUS there is but one known SPECIES.

1. THE CARAWAY PLANT.

Character of the Species.

The Leaves are doubly winged, with deeply divided Leaflets.

THIS is a Biennial, native of rich meadow grounds in England, and many other parts of Europe, but with us not very common. It is a handsome Plant, of two feet and a half high, with large and very beautiful Leaves, flowering in July. The Leaves are of a deep and strong green, conspicuous both for their colour and elegant divisions: the Stalk is green, firm, and branchy: the Flowers are white; and the Seeds brown.

OUR Fathers were right to use the Seeds often in food, they saved the need of physic; they are second to nothing in the world, as a warm carminative.

ORDER



Generic Character

The Caraway Plant.



Broad leav'd Deadly Carrot.

*Thrice wing'd
Deadly Carrot.*

*Fine leav'd
Deadly Carrot.*

Fernate Deadly Carrot.

O R D E R II.

Umbrella'd Plants, destitute of all Mantles, with the Umbrells clustery, or of many rays.

G E N U S I.

D E A D L Y C A R R O T.

Plate 55.

Character of the Genus.

The general Umbrell is convex, vast, and of many rays; the partial Umbrells are clustery, and nearly flat. The Flowers are uniform and regular; each consists of five Petals, which are lanced, and turned in at the points. The Seeds are vast, oblong, convex, pointed at each end, and winged on each side with a broad Film.

Plate 55. *a b c d e f*.

1. B R O A D - L E A V E D D E A D L Y C A R R O T.

Plate 55. Fig. 1.

Character of the Species.

Thapsia villosa.

The Leaves are doubly winged; and their Leaflets are simple, lanced, and grow together at their base.

Fig. 1. *a b c*.

This is a Perennial, native of Spain and Portugal; a Plant of two feet and a half in height, flowering in July. The Leaves are of a strong green: the Stalk is thick, spungy, ribbed, and branched: the Flowers are yellow: and the Seeds brown, with yellow Films.

2. T H R I C E - W I N G E D D E A D L Y C A R R O T.

Plate 55. Fig. 2.

Character of the Species.

Thapsia foetida.

The Leaves are thrice winged, with deep cut Leaflets, narrow, and free at their base.

Fig. 2. *a b c*.

This is a Perennial, native of France, Spain, and Portugal; a Plant of two feet high, flowering in August. The Leaves are of a delicate, pale green: the Stalk also is pale: the Flowers are yellow: and the Seeds are brown, with pale Films.

3. F I N E - L E A V E D D E A D L Y C A R R O T.

Plate 55. Fig. 3.

Character of the Species.

Thapsia Asclepium dicta.

The Leaves are cut into fine slender parts, like Fennell.

Fig. 3. *a b*.

This is a Biennial, native of Italy; a Plant of near a yard in height, flowering in June. The Leaves are of a pale, but pleasant green: the Stalk also is pale: the Flowers are yellow: and the Seeds are of a pale brown, with yellowish Films.

4. T E R N A T E D E A D L Y C A R R O T.

Plate 55. Fig. 4.

Character of the Species.

Thapsia trifoliata.

The radical Leaves are simple and oval; those on the Stalk grow by threes.

Fig. 4. *a b*.

This is a Perennial, native of Virginia; a Plant of two feet and a half high, flowering in August. The Leaves are of a bright fine green: the Stalks are also green and glossy: The Flowers are white, with a slight tinge of yellow: and the Seeds are brown, with numerous brownish Films.

G E N U S II.

P A R S N E P.

Plate 56.

Character of the Genus.

The general Umbrell is vast, flattened, and of many rays; the partial Umbrells are clustery, of many rays, and lightly convex. The Flowers are uniform and regular, each consists of five Petals, which are lanced and turned in at the points. The Seeds are elliptic, flattened, and edged on each side with a slight Film.

Plate 56. *a b c d e f*.

1. W I N G E D - P A R S N E P.

Plate 56. Fig. 1.

Character of the Species.

COMMON PARSNEP.
Pastinacha sativa.

The Leaves are simply winged with oval dented Leaflets.

Fig. 1. *a b*.

THIS is a Biennial, native of almost all parts of Europe in its wild state, and cultivated every where in gardens, where its Leaves grow larger than in the wild state, and lose the hairyness they have in that; and the root becomes bigger and more tender. These, and these only, are the differences between the *Elaphoboscum*, or Wild Parsnep, and the *Pastinacha*, or Parsnep of the Garden. The Leaves are of a bright, but yellowish green: the Stalk is yellowish and ribbed; in the wild state two feet and a half high, under culture five feet: the Flowers are yellow; and the Seeds of a bright brown, with pale yellowish Films.

2. T W I C E - W I N G E D P A R S N E P.

Plate 56. Fig. 2.

Character of the Species.

Pastinacha Opoponax dicta.

The Leaves are twice winged, with oval, distant, and serrated Leaflets.

Fig. 2. *a b c*.

THIS is a Perennial, native of Italy, Sicily, and Switzerland; a Plant of three feet high, flowering in July. The Leaves are of a very fine strong green: the Stalks are firm, striated, branched, and of a pale green: the Flowers are yellow, in vast Umbrells: and the Seeds are brown, with pale Films.

THE *Opoponax* is a good nervous medicine, carminative, and gently aponent: less used than it deserves.



Generic Character

Winged Parsnep.

Twice winged Parsnep



Vol. 6 Perfoliate Alexanders.

Hearted Alexanders.

G E N U S III.

A L E X A N D E R S.

Plate 57.

Character of the Genus.

The general Umbrell is irregular and uneven, of many rays of different lengths; the partial Umbrells are lightly convex. The Flowers are uniform and regular, each consists of five Petals, oblong, lanced, and turned in at their points. The Seeds are hooked, and marked with three ridges.

Plate 57. *o a b c d e f.*

1. P E R F O L I A T E A L E X A N D E R S.

Plate 57. Fig. 1.

Character of the Species.

Smyrnum perfoliatum.

The radical Leaves are doubly winged; those on the Stalk are simple, heart-shaped, and the Stalk grows through them.

Fig. 1. *a b c.*

THIS is an Annual, native of Crete; a Plant of near a yard in height, and of a very singular aspect, flowering in June. The Stalk is yellowish, ribbed, and a little bent from joint to joint: the Leaves are of a yellowish green, and smooth surface: the Flowers are yellow: and the Seeds are small and brown.

2. H E A R T E D A L E X A N D E R S.

Plate 57. Fig. 2.

Character of the Species.

Smyrnum Ægyptiacum.

The Leaves are all doubly winged, except two at the bases of the Footstalks of the Umbrells, which are simple and heart-shaped.

Fig. 2. *a b.*

THIS is a Biennial, native of Ægypt; a spreading Plant, of a yard high, flowering in July and August. The Leaves are of a deep and strong green: the Stalks also are green: the Flowers are yellow: and the Seeds are brown.

THIS seems a kind of intermediate Plant, by which the most singular preceding Species is connected with those of more natural and usual appearance, which follow.

3. T R E.

3. TERNATE ALEXANDERS.

Plate 58. Fig. 1.

Character of the Species.

Smyrnium Olusatrum dictum.

The radical Leaves are doubly winged with ferrated Leaflets; those on the Stalk consist only of three simple Leaflets, of the same form.

Fig. 1. a b.

THIS is a Biennial, native of our river sides, and was at one time frequent in our gardens, where it was cultivated for the table; a Plant of four feet high, flowering in August. The Leaves are of a pale, but fresh green: the Stalk is also of a pale green, very thick, ribbed, and full of branches; the Flowers are of a dead white: and the Seeds of an olive brown. Celeri has taken the place of Alexanders at our tables; but all are not of opinion that it deserves the preference. The blanched Stalks of Alexanders are much tenderer than those of Celeri; and their taste, though high and strong, may be esteemed by some more agreeable.

4. COMPLEX-LEAVED ALEXANDERS.

Plate 58. Fig. 2.

Character of the Species.

Smyrnium aureum.

The Leaves are doubly winged, and the secondary Footstalks have them placed by threes, and entangled one behind another.

Fig. 2. a b c.

THIS is a Perennial, native of North America in many places; a Plant of a yard high, flowering in August. The Leaves are of a deep, and somewhat yellowish green: the Stalk is ribbed and branchy, and of a sad green: the Flowers are yellow: and the Seeds are brown.

5. ENTIRE-LEAVED ALEXANDERS.

Plate 58. Fig. 3.

Character of the Species.

Smyrnium integrimum.

The Leaflets stand in threes, like perfect Leaves, upon the divisions of the Footstalks, and they are oval, obtuse, and undivided.

Fig. 3. a b c.

THIS is a Perennial, native of Virginia; a Plant of three feet or more in height, flowering in July. The Leaves are of an unpleasant blueish green: the Stalks are pale, ribbed, and branched: the Flowers are white, with a faint tinge of yellow: and the Seeds are brown.

G E N U S



Ternate Alexanders.



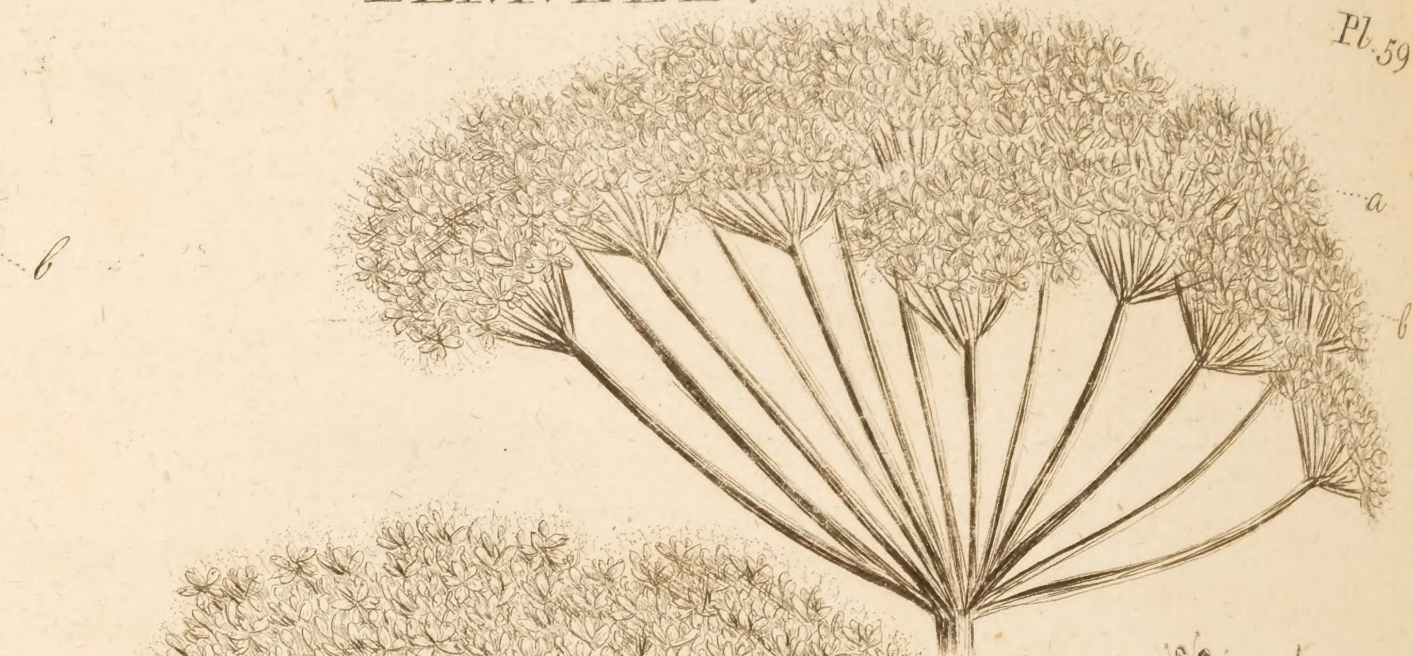
Entire leaved Alexanders.



Complex leaved Alexanders.



Generic Character.



Generic Character.



Fine leaved Dill.



Common Fennell.

G E N U S IV.

D I L L.

Plate 59.—1.

Character of the Genus.

The general Umbrell is broad and flat, and composed of many rays; the partial Umbrells are clustery and flat. The Flowers are uniform; they consist each of five narrow, lanced Petals, sharp, and turned in at the points. The Seeds are oval, rising on the back, striated, and edged with thin, pale Films at the sides.

Plate 59. *a b c d e f*.

Of this GENUS we have but one SPECIES.

1. FINE-LEAVED DILL.

Plate 59. Fig. 1.

Character of the Species.

Anethum graveolens.

The Leaves are cut into extremely fine thready parts.

Fig. 1. *a b*.

THIS is an Annual, native of the corn fields in Spain and Portugal; a weed as much detested there, as Cockle or Corn Marygold with us; we raise it in our kitchen gardens. The Leaves are of a fresh, but not strong green: the Stalk is thick, ribbed, and two feet and a half high: the Flowers are of a faint yellowish: and the Seeds are of a pale brown. They are of a taste extremely singular, as are also their qualities. They are a gentle and sweet soporific; this joined to their warmth and carminative virtue, ought to recommend them to great use, but we employ them for little else but to give flavour to pickled Cucumbers.

G E N U S V.

F E N N E L L.

Plate 59.—2.

Character of the Genus.

The general Umbrell is lightly convex; the partial Umbrells are a little convex also. The Flowers are uniform, each has five lanced Petals, a little obtuse, and turned in at the points. The Seeds are of an oblong oval form, swollen on the back, striated, and naked at the sides.

Plate 59.—2. *a b c d e f*.

Of this also we know only one SPECIES.

1. COMMON FENNEL.

Plate 59. Fig. 2.

Character of the Species.

Anethum Foeniculum dictum.

The Leaves are cut into innumerable fine Segments.

Fig. 1. *a*.

THIS is a Biennial, native of our own country, and almost all other parts of Europe; a robust Plant, of four feet or five feet high, flowering in June. The Leaves are of a deep green, often tinged with brown: the Stalks also are deep green: the Flowers are yellow: and the Seeds are brown.

GREAT culture has sweetened the Seeds of Fennel, and the variation is preserved in many places, not for curiosity alone, but use. The Seeds are sufficiently carminative in this state, and less acrid.

GENUS VI.

BURNET SAXIFRAGE.

Plate 60.

Character of the Genus.

The general Umbrell is of many rays, and lightly convex; the partial Umbrells are of many rays, and nearly flat. The Flowers are uniform, each has five Petals, broad at the ends, where they are a little hearted, and turned in. The Seeds are oblong, small at one end, convex on the back, and striated.

Plate 60.—o. o a b c d e f.

1. VARIOUS-LEAVED BURNET SAXIFRAGE.

Plate 60. Fig. 1.

Character of the Species.

Pimpinella saxifraga.

The Leaves are winged, the lower ones with rounded Leaflets: the upper with narrower, and lanced, and often deeply divided.

Fig. 1. a b c.

THIS is a Perennial, native of our dry pastures, but not common; a Plant of two feet high, flowering in June. The Leaves are of a fine green: the Stalk is hard, slender, and pale: the Flowers are white, with a blush of crimson: and the Seeds are brown.

THERE is vast variety in the aspect of this Plant, as the soil and circumstances differ. The Leaves will be all simple, all once winged, or all nearly twice winged, by the deep divisions of the original Leaflets; and the Flowers from a very deep crimson, to a very pale, and quite white. The variations of the Leaves, and different heights of the Plant, from the same causes, have led old writers to consider it as affording different Species, but they vanish into one another, and are lost on a close view. Often one Plant affords Leaves of all the kinds, as in the present figure, made from a Plant gathered ten years since near Canterbury.

2. BLUE-GREEN BURNET SAXIFRAGE.

Plate 60. Fig. 2.

Character of the Species.

Pimpinella glauca.

The Leaves are thrice winged: the Stalk is wide branched.

Fig. 2. a b.

THIS is a Biennial, native of France and Spain; a Plant of two feet and a half high, flowering in June. The Leaves are of a fresh and beautiful green: the Stalks are ribbed, hard, and pale: the Flowers are white: and the Seeds are of a bright brown.



Various leaved Burnet Saxifrage
Vol. 6

Blue-green Burnet Saxifrage



Vol. 6
Crenated Burnet Saxifrage.

Anise. 2 Burnet Saxifrage.

3. CRENATED BURNET SAXIFRAGE.

Plate 61. Fig. 1.

Character of the Species.

Pimpinella peregrina.

The lower Leaves are simply winged : the Leaflets oval and crenated ; the upper ones have the Leaflets cut deeper.

Fig. 1. *a b.*

THIS is a Perennial, native of dry grounds in Italy and Spain ; a Plant of two feet and a half high, flowering in May and June. The Leaves are of a very fine strong green : the Stalk is pale and whitish : the Flowers are white : and the Seeds are of a deep dusky brown.

4. ANISE BURNET SAXIFRAGE.

Plate 61. Fig. 2.

Character of the Species.

ANISE.

Pimpinella Anisum dictum.

The lower Leaves are formed of three broad, indented Leaflets, the upper ones of more numerous and deeply divided ones.

Fig. 2. *a b.*

THIS is an Annual, native of Ægypt, and raised by culture in the Levant islands in vast quantities for its Seed. The first Leaves are of a deep green, the others paler : the Stalk rises to a foot and half high, and is firm, striated, and branched : the Flowers are white : and the Seeds are of a pale olive brown.

THOUGH we have here separated Dill and Fennell, which it is the fashion to consider as of one Genus, there is no disjoining Anise from the Pimpenells. It is a true and legitimate Species of the Burnet Saxifrage. There the shape of the Seed, and its filmy edge, gave absolute and essential marks of difference, so much indeed, as to cause some wonder they were joined. Here the marks of any thing more than a specific distinction are sought in vain.

G E N U S

G E N U S VII.

G O U T W E E D.

Plate 62.

Character of the Genus.

The general Umbrell is convex ; the partial Umbrells are but very lightly convex, and both formed of many rays. The Flowers are uniform and regular, each consists of five Petals, which are oval, hollowed, and obtuse. The Seeds are of an oblong oval form, raised on one side, and ridged.

Plate 62. *a b c d e f*.

Of this GENUS we know only one SPECIES.

THOUGH the aspect of the Plant has nothing in it very singular, we find it impossible to be united with, or received into, any other Genus, on account of its Flower.

I. COMMON GOUTWEED.

Plate 62.

Character of the Species.

Ægopodium Podagraria dictum.

The lower Leaves are simply winged ; the upper ones are ternate. Fig. 1. *a b*.

THIS is a Perennial, a weed in our garden grounds ; most troublesome and difficult of extirpation : it grows to a yard high, and flowers in June. The Leaves are of a fresh green, with a smooth, beautiful surface : the Stalk is weak, with open branches, of a pale colour, and ribbed : the Flowers are of a greenish white : the Seeds are brown.

THE Plant has its English name from a German one of the same signification, and it is said to have obtained that from the use of its roots externally for the gout ; but it has not been tried here.

END of the SIXTH VOLUME.



Common Gout Weed.

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THE
VEGETABLE SYSTEM.

O R,

The INTERNAL STRUCTURE

AND

The LIFE of PLANTS;

Their PARTS, and NOURISHMENT, Explained;

THEIR

CLASSES, ORDERS, GENERA, and SPECIES,

Ascertained, and Described;

In a METHOD altogether NEW:

COMPREHENDING

AN ARTIFICIAL INDEX,

AND

A NATURAL SYSTEM.

With FIGURES of all the PLANTS; Designed and Engraved by the AUTHOR.

The Whole from NATURE only.

By JOHN HILL, M. D.

MEMBER OF THE IMPERIAL ACADEMY, &c. &c.

VOL. VII.

Containing the First SERIES of the ONE-PETAL'D PLANTS.

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M.DCC.LXXII.

THE VEGETABLE SYSTEM.

1

HERBS.

SERIES the FOURTH.

Bearing VISIBLE, COMPLETE, and PERFECT FLOWERS, placed on SEPARATE FOOTSTALKS, which rise IRREGULARLY on the Plants: each Flower having its PROPER CUP, ITS CHIVES being distinct, and placed either together with the POINTAL in the SAME FLOWER, or on some other part of the SAME PLANT.

——The Flowers being regular.——

CLASS VII.

Those which have the Flower formed of one Petal.

Character of the Class.

Plants whose Flower consists of one Petal, with a perfect Cup, and distinct Chives.

as Thorn-apple, Pl. 1. Fig. 1, 2, 3.

Subdivisions of the SEVENTH CLASS.

THE Plants of this Class are extremely numerous: It comprehends, besides those usually distinguished by the Title *Monopetalæ*, the *Stellate* and *Asperifoliate* Plants, and several other kinds which many earlier authors have ranged as entire and separate Classes; and which Nature authorises them to consider as such. But here we have professedly nothing to do with the combinations or distinctions made by Nature, in the great associations of Plants; we seek essential, absolute, and obvious distinctions in their Flowers, and Fruit, and use them as we find them. The Character of a ONE-PETAL'D FLOWER is simple, perfect, and plain: We therefore place the Plants which have it all together: using the distinctions of which nature makes so much, and of which we shall make so much when, in the subsequent parts of this work, we trace her divine footsteps in a natural arrangement, here only as subordinate; as Characters of Tribes, and Families, and Orders, making the subdivisions of this great and extensive artificial Class.

THERE is no part of the Botanic System in which, to the experienced eye that sees the whole together, the course of Nature is so plainly to be traced as here: We see, and we adore her regular progression, from great to less, from the entire and perfect to the broken and divided, by almost imperceptible advances; and stop to wonder at it, even while we for the present put it from us. Our stated method, and the necessary first knowledge of the objects, oblige us to proceed in this strict way; for 'tis too much to expect that the connections, places, combinations, and degrees of things be understood before the things themselves are known; nor is it indeed possible that the human mind should, without this first knowledge, conceive the plan of Nature's operations; or entertain the idea of her course.

'Tis easy to see that in this great Class Nature has established her own, let me not say Distinctions, but Gradations; and left no gap between them: It may not be amiss so far also to introduce our Pupil to her method, as to name those links in the unbroken chain, which exist palpably in her works, but being excluded by the laws of our first method from appearing in their places here, might seem altogether wanting. Thus Nature in her course gives the one-petal'd Flower, 1st. simple and entire, as in the strange, most strange MARC-

GRAVIA ; then, 2d. with its entire edge folded, as in the Bindweeds ; next, 3d. with these folds torn open, that is, with the Flower divided into parts, or segments, to a certain depth ; and these in perfect order, and with distinct gradations. First the division is into two parts only, as in the LABIATE FLOWERS ; next into three, as in the PINE-APPLE ; then into four, as in the CLEAVERS ; into five, as in the GENTIAN ; into six, as in the RHUBARB ; even into seven, as in the TRIENTALIS ; and hence into the multitudinous Series of the MESEMBRIANTHEMUM.

ALL this regularity there is in Nature ; but we should confound all, should we pursue it here ; for Plants must be known by the Student, before they can be thus accurately understood. Our method, leading to the certain knowledge of the objects, first by artificial Characters, which are perfectly distinct, is obliged to neglect the LABIATES, which make the second great gradation here ; because the Flower in them being irregular, that is, irregularly divided, they constitute our eighth Class ; and cannot be admitted till all the regular or equal divisions of the Petal, and all the compositions of regular Petals, in number, have been first disposed and arranged.

THIS may give a general idea of the regular and perfect method Nature follows in her own course ; and of the just sense we entertain of it : It may shew, that what appear gaps in the great chain of Vegetable being, while we pursue this artificial method, are none in the reality ; for there are none in Nature ; and explain how, while we permit them here, they will be filled up hereafter.

THE Reader, who is sensible that the very idea of a natural method presupposes a knowledge of the Plants, will see at once the first necessity of an artificial one, together with its inconveniences. When he observes in our succeeding detail of the ORDERS in this Class, no Article between the simply folded Flower and that cut into three parts, he will neither infer thence that there is none in Nature wherein the division is into two ; nor will he wonder why, conceiving that there is one, it appears not in that place ; he will know it cannot, consistently with that accuracy of Character on which the first knowledge of Plants absolutely depends.

THE perfect one-petal'd Plants which compose the present Class, though very numerous, are less perplexed in their distinctions than those in several of the preceding kinds ; since they may be arranged by certain very obvious, greater Characters, into distinct TRIBES ; and those are again capable of a subdivision into ORDERS by marks as essential : Nor are we denied in those parts where the number is greatest, as in the Tribe where the Petal is divided into Parts, an intermediate separation into FAMILIES, pure, distinct, and perfectly set apart from one another, by Characters obvious to the eye, and incapable of confusion.

THE Class of Plants with one-petal'd perfect Flowers, may be first naturally divided, according to the general form and outline of the Flower, into three Tribes.

TRIBE I.

Those which have the Flower perfectly SIMPLE ; neither folded, nor divided.

as Wheelweed, Plate I. Fig. 4.

TRIBE II.

Those which have the Flower PLAITED, or folded, and wavy at the edge, but yet entire.

as Bindweed, Plate I. Fig. 5.

TRIBE III.

Those which have the Flower DIVIDED, or cut, to a certain depth, into Segments.

as Borage, Plate I. Fig. 6.

O N E-

ONE-PETAL'D PLANTS.

T R I B E I.

With the Flower simple.

Of this Tribe there is but one known Genus, and therefore there can be no distinction into Families or Orders.

T R I B E II.

With the Flower PLAITED or folded at the edge.

THIS, like the former Tribe, contains no more than one Genus, but 'tis a very large and comprehensive one, the Bindweeds.

T R I B E III.

With the Flower DIVIDED or cut into segments.

THE scarcity of Plants in the two former Tribes is compensated by the multitudes in this; but happily Nature, which gives this abundance of the Species, has afforded also the means of an intermediate distinction, which takes place before the distribution into Orders. These Plants may be arranged under the division of Families, according to the number of the parts into which the Petal is cut.

T R I B E III.

F A M I L Y I.

Having the Flower cut into three parts. as Pine-apple, Plate I. Fig. 7.

F A M I L Y II.

Having the Flower cut into four parts. as Cleavers, Plate I. Fig. 8.

F A M I L Y III.

Having the Flower cut into five parts. as Gentian, Plate I. Fig. 9.

F A M I L Y IV.

Having the Flower cut into six parts. as Saffron, Plate I. Fig. 10.

F A M I L Y V.

Having the Flower cut into seven parts. as Winter-weed, Plate I. Fig. 11.

F A M I L Y VI.

Having the Flower FRINGED, or cut into a great number of parts.
as Cape-weed, Plate I. Fig. 12.

ONE-PETAL'D Plants with divided Flowers.

F A M I L Y I.

With the Flower cut into three parts.

Of this Family there is but one known Genus, the Pine-apple, already mentioned.

F A M I L Y II.

With the Flower cut into four parts.

Of this Family there are three distinct Orders.

O R D E R I.

Having the Flower BELL-FASHIONED. as Madder, Plate I. Fig. 13.

O R D E R II.

Having the Flower FLAT. as Bedstraw, Plate I. Fig. 14.

THE VEGETABLE SYSTEM.

ORDER III.

Having the Flower TUBULATED. as Woodruffe, Plate 1. Fig. 15.

FAMILY III.

Having the Flower divided into five parts.

THIS Family of the monopetalous Plants is of vast extent; and demands, and easily admits of two additional and subordinate distinctions, according to the condition of the Seeds, the Rudiments of which are obvious while the Plant is in Flower.

HERBS with one-petal'd Flowers cut into five segments.

RANK I.

With the Seeds lying naked in the Cup. as Hounds-tongue, Plate 1. Fig. 16.

RANK II.

With the Seeds in CAPSULES or other FRUITS. as Bell-flower, Plate 1. Fig. 17.

RANK I.

With the Seeds lying loose in the Cup.

ORDER I.

Having the throat of the Flower NAKED. as Lungwort, Plate 1. Fig. 18.

ORDER II.

Having the throat of the Flower DENTATED. as Comfrey, Plate 1. Fig. 19.

ORDER III.

Having the throat of the Flower ARCH'D. as Turnsole, Plate 1. Fig. 20.

RANK II.

With the Seeds contained in Capsules or Fruits.

Of this Rank there are no less than five Orders.

ORDER I.

Having a Seed-vessel containing one Seed. as Marvel of Peru, Plate 1. Fig. 21.

ORDER II.

Having a Seed-vessel with many Seeds. as Cowslip, Plate 1. Fig. 22.

ORDER III.

Having a single juicy Fruit or Berry. as Nightshade, Plate 1. Fig. 23.

ORDER IV.

Having two Pods after every Flower. as Swallow-wort. Plate 1. Fig. 24.

ORDER V.

Having five Pods after every Flower. as Thickweed, Plate 1. Fig. 25.

FAMILY III.

With the Flower divided into six parts. as Tube Flower, Plate 1. Fig. 26.

Of this Family there are only two Genera, which need no subordinate distinction of Rank or Order.

FAMILY IV.

Having the Flower divided into seven parts.

Of this Family there is only one known Genus. The Trientalis, Plate 1. Fig. 26.

FAMILY V.

Having the Flower FRINGED or divided into a multitude of segments.

This also contains but one known Genus. Mesembryanthemum, Plate 1. Fig. 27.



Its Cup.



A one petal'd Flower.



Its distinct Chives.



A simple Flower.
Wheelweed.

The three Tribes of one Petal'd Flowers.



A plaited Flower.
Bindweed.



A divided Flower.
Borage.



A three cut Flower.
Pine Apple.



A four cut Flower.
Cleavers.



A five cut Flower.
Gentian.



A six cut Flower.
Saffron.



A seven cut Flower.
Winternweed.

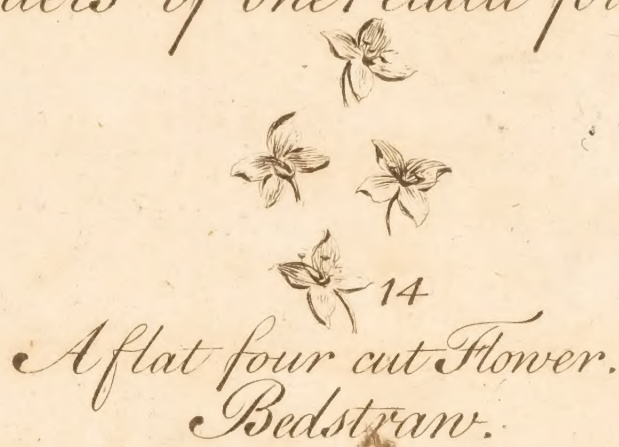


A fringed Flower.
Capeweed.

The three Orders of one Petal'd four cut Flowers.



A Bell fashioned four cut Flower.
Madder.



A flat four cut Flower.
Bedstraw.



A Tubulate four cut Flower.
Woodruffe.

The two Ranks of five cut Flowers.



Five cut Flowers with naked Seeds.
Houndstongue.



Five cut Flowers with Seed Vessels.
Bell Flower.

The three Orders of naked seeded five cut Flowers.



With the Throat naked.
Lungwort.



With the Throat dentated.
Comfry.



With the Throat arch'd.
Turnsole.

The 5 Orders of capsulated Plants with five cut Flowers.



The Capsule with one Seed.
Marvell of Peru.



The Capsule with many Seeds.
Covslip.



The Berry.
Nightshade.



The double Pod.
Swallowwort.



The Five Podded.
Thickweed.



The six cut Flower.
Tub Flower.



The seven cut Flower.
Trientalis.



The many cut Flower.
Mesembryanthemum.



Plant name



Plant name



Plant name



Plant name



Plant name



Plant name



Plant name



Plant name



Plant name



Plant name



Plant name



Plant name



Plant name



Plant name



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Plant name



Plant name



Plant name



Plant name



Plant name



Plant name



Plant name



Plant name



Plant name



Plant name



Plant name

WHEEL WEED

Pl. 2



Generic
Character

THE VEGETABLE SYSTEM.



HERBS.

SERIES the FOURTH.

Having regular Flowers, with distinct Chives, perfect, and separate on the Plant.

CLASS VII.

With the Flower formed of one Petal.

TRIBE I.

Having the Flower simple, entire, plain, and perfectly undivided.

GENUS I.

WHEELWEED.

MARCGRAVIA.

Character of the Genus.

The Cup is composed of six unequal Films: the Flower is perfectly plain, of an oval form, and closed at the top: the Fruit is a round Berry with many Seeds.

Plate 2. *a b c d.*

I. CLAMBERING WHEELWEED.

Plate 2. Fig. 1.

Character of the Species.

Marcgravia umbellata.

The Flowers are disposed in a circular cluster.

Fig. 1. *a.*

THIS is a Perennial, native of the woods in South America: a climbing Plant, which runs up Trees to the height of twelve or fourteen feet; and flowers throughout the year. The Leaves are of a very good green: the Stalk is hard and brown, tinged usually with crimson on the sunny side: the Flowers are white, and the Berries juicy; and of so deep a crimson that they appear almost black.

THE wonderful assemblage of Glands, among which the Footstalks of the Flowers rise, are of an Olive brown, tinged with crimson toward the edges. They mimic Flowers, but have none of the parts or organs proper to the continuation of the Species; therefore they are mere glandular bodies, a kind of Nectaria; though in an odd place out of the body of the Flower.

THE Plant, indeed, is altogether wonderful, and is one of those singular kinds which connect distinct, and seemingly distant Classes, in the order of Nature.

ONE.

THE VEGETABLE SYSTEM.

ONE-PETAL'D PLANTS.

TRIBE II.

Having the Flowers PLAITED or folded; and wav'd, but undivided at the edge.

GENUS I.

BINDWEED.

CONVOLVULUS.

Character of the Genus.

The Cup is cut into five Segments: the Flower is bell-fashioned, and plaited in folds to the edge: the Seed-vessel is oval, with two Cells, and in each are two Seeds.

Plate 2. *a b c d*.

1. RAMPING BINDWEED.

Plate 3. Fig. 1.

GREAT BINDWEED.
Convolvulus sepium.

Character of the Species.

The Leaves are shaped like arrow heads, but the Beards are cut off flat: the Stalk climbs: the Flowers stand singly, on square Footstalks.

Fig. 1. *a b c*.

THIS is a Perennial, native of our cultivated grounds and hedges; a torment equally to the husbandman and gardener; its spreading and vivacious Roots rendering it difficult of extirpation. It flowers from June to October. The Leaves are of a bright fresh green, but often brownish at the edge: the Stalks also are often brownish: the Flowers are milk-white; they have a silky aspect; and though they grow upon a Weed, are really beautiful: the Stalk is weak, but supporting itself by winding about stronger things, will grow to seven feet high. The characteristic form of the Leaves is to be sought in those on the lower part of the Stalk, the young ones at the head are apt to vary from it.

THE Roots of this Plant are a violent purge; yet hogs eat them without hurt: a proof how carefully we must reason from the effects of things on brutes, to those on men.

2. CREEPING BINDWEED.

Plate 3. Fig. 2.

LESSER BINDWEED.
Convolvulus arvensis.

Character of the Species.

The Leaves are arrowed, with the Beards sharp: the Stalk trails upon the ground: the Flowers stand singly.

Fig. 2. *a b c*.

THIS is a Perennial, native of our dry banks: a Plant of ten inches in length; flowering in June. The Leaves are of a dead green: the Stalks are reddish; and the Flowers white, elegantly streaked along the folds with crimson.

3. BEARDED BINDWEED.

Plate 3. Fig. 3.

Convolvulus Medium dictus.

Character of the Species.

The Leaves are sharp pointed, and have dentated Beards: the Segments of the Cup are arrowed.

Fig. 3. *a b c*.

THIS is a Perennial, native of the East Indies: a Plant that climbs to ten feet high; and flowers in July and August. The Leaves are of a blueish green: the Stalks are brown: the Flowers are of a pale, but very delicate crimson.

4. ROUGH-





Umbrellad Bindweed.

Rough cuped Bindweed.



Joint rooting Bindweed.

4. ROUGH-CUP'D BINDWEED.

Plate 4. Fig. 1.

GREAT BLUE BINDWEED.
Convolvulus hederaceus.

Character of the Species.

The Cups are rough with Tubercles, and covered with stiff short hairs.

Fig. 1. *a b.*

THIS is an Annual, native of Asia, Africa, and America, and familiar in our gardens ; where it thrives as well, during its limited period of three or four months, as if it were a native of cooler regions. It is in beauty one of the best of our summer Plants ; and in the variation of its Leaves in shape, and of its Flowers in colour, it is the greatest, perhaps, of all examples, how far Nature can wander without forgetting the original source of her varieties.

THE Plant in its plain, simple, and natural state, is a climber among bushes, running to seven feet high ; the Leaves are heart-shaped, and of a bright green : the Flowers are of a celestial blue ; and it is covered with them from June to September.

WITH respect to the variation of its Flowers in colour, we see them crimson, white, pale blue, and streaked ; and sometimes the same Flower has all these colours mixed in it : This is less wonderful than the change of form in the Leaves ; which are sometimes round, sometimes cornered, and often resemble those of Ivy. Hence authors, nay and good ones, have imagined six or eight Species. They might have remembered, that so great a variation between round and angulated is not without example in the Vegetable world : The Cyclamen affords a familiar instance.

5. UMBRELLA'D BINDWEED.

Plate 4. Fig. 2.

Convolvulus umbellatus.

Character of the Species.

The Leaves are heart-shap'd ; the Flowers grow in clusters. Fig. 2. *a b.*

THIS is a Perennial, native of Jamaica ; a Plant which climbs to eight or ten feet high ; and flowers in August. The Leaves are of a fine grass green : the Stalk is green, but lightly tinged with brown : the Flowers are yellow.

6. JOINT-ROOTING BINDWEED.

Plate 4. Fig. 3.

SPANISH POTATOES.

Convolvulus Battatas.

Character of the Species.

The Leaves are heart-shap'd, but angulated and cut deep into corners ; the Stalk sends out thick Roots from its Joints. Fig. 3. *a b c d.*

THIS is a Perennial, native of the East and West Indies, and in both is valued highly for its esculent Roots. The Stalks trail upon the ground to the length of five or six feet, and are hairy, and green : the Leaves are of a deep green : the Roots are white within, but have a crimson Rind, when in perfection : they are not unlike in colour to our Salmon Radish, but tuberous and large : the Flowers are of a pale crimson, but it seldom shews them.

7. WELTED BINDWEED.

Plate 5. Fig. 1.

Character of the Species.

TURBITH.
Convolvulus Turpethum.

The Stalk is square, and welted with thin Films; the Leaves are angulated; and the Flowers grow in clusters.

Fig. 1. a b c d.

THIS is a Perennial, native of the East Indies; a Plant which climbs to twelve feet high, and flowers in August. The Leaves are of a whitish green, and soft to the touch; the Stalks are also whitish: the Flowers are large, and numerous, and very elegant. They are sometimes white all over, but are often streaked and blotched with a pale crimson. Sometimes also the ground colour of the Flower is crimson; and the Streaks are white.

THE Root of this Plant is the *Turbith* of our shops; a purge useful in many cases, and worthy to be more used than it is. All the Bindweeds have something of this quality; and it is worth the attention of some physician to try what may be done by properly managing the Leaves of our own.

8. DEEP-CUT BINDWEED.

Plate 5. Fig. 2.

Character of the Species.

Convolvulus althæoides.

The Leaves are cut into deep, obtuse, oblong Lobes; the Flowers grow two on each Footstalk.

Fig. 2. a b c d.

THIS is a Perennial, native of the south of Europe, and also of the Levant Islands; a very singular and very beautiful Plant: it climbs among bushes to the height of six or seven feet, and flowers from June to October. The Leaves are of a whitish green, and have a delicate silvery aspect: the Stalk is also pale: the Flowers are of a delicate light crimson: the Leaves of this Plant vary extremely in the degree and depth of the divisions; but their general outline is always the same.

9. TRILOBATE BINDWEED.

Plate 5. Fig. 3.

Character of the Species.

Convolvulus tomentosus.

The Leaves are cut into three Lobes; the whole Plant is covered with down.

Fig. 3. a b.

THIS is a Perennial, native of Jamaica, and Carolina; a Plant that climbs to eight or ten feet high, and flowers in August. The Stalk is white, and woolly: the Leaves are also whitish: the Flowers are of a very beautiful crimson. In the outskirts of some woods they cover the whole surface of the Trees and Shrubs, and give the resemblance of a sheet of crimson satin, conspicuous at several miles distance.

BINDWEED

3



Wilted Bindweed

Deep Cut Bindweed



Trilobate Bindweed

4



Rugged Bindweed



Kidney leaved Bindweed



Goatsfoot Bindweed

Vol. 7.



Nipd Bindweed

10. KIDNEY-LEAVED BINDWEED.

Plate 6. Fig. 1.

Character of the Species.

Convolvulus Soldanella.

The Leaves are roundish, but dented at the Footstalks ; the Flowers stand single.

Fig. 1. *a b c.*

THIS is a Perennial, native of our sea coasts ; a little Plant that straggles on the ground to eight or ten inches in length, and flowers in June. The Stalk is of a dull green : the Leaves also are of an unpleasing dusky hue, and are often sun-burnt, brown, and crimson : the Flowers are of a strong red.

THIS Plant has considerable virtues, but is too powerful for the hands in which it is usually trusted. I have found it a purge of the more violent kind ; excellent in dropsies. With the vulgar it usually vomits also vehemently ; and this is from their coarse way of administering it, or from an over-dose : for every purge in an over-dose is a vomit, and every vomit in a smaller dose a purge. In Essex they eat the Leaves raw with vinegar, as a fallad, to purge and vomit them, which they do too violently : there are indeed accounts of death from it. When fresh it is full of a bitter milky juice : the best way to use it is dry, and infused with bruised Anniseeds.

11. RUGGED BINDWEED.

Plate 6. Fig. 2.

Character of the Species.

Convolvulus hirtus.

The Leaves are hearted at the base, sharp-pointed, and covered with firm hairs ; the Flowers grow in clusters.

Fig. 2. *a b c d.*

THIS is a Perennial, native of China ; a Plant that trails upon the ground, to about a foot in length, and flowers in May. The Leaves are of a faint yellowish green : the Stalks are harsh to the touch : the Flowers are crimson.

12. GOATSFOOT BINDWEED.

Plate 6. Fig. 3.

Character of the Species.

Convolvulus Pes Capræ.

The Leaves are cloven at the end ; the Flowers stand single.

Fig. 3. *a b.*

THIS is a Perennial, native of the East Indies ; a Plant that climbs to many feet in height, and flowers in June. The Leaves are of a bright green, and glossy : the Stalks are green, and tender : the Flowers are crimson.

13. NIPP'D BINDWEED.

Plate 6. Fig. 4.

Character of the Species.

Convolvulus Brasiliensis.

The Leaves are oblong, and nipped away at the end ; the Flowers stand in clusters.

Fig. 4. *a b.*

THIS is a Perennial, native of the sea coasts of South America ; a Plant that covers the bare sand with a vast redundance of branchy Stalks, often twelve inches long, and flowers in June. The Leaves are pale : the Stalk is brownish : the Flowers, which are very numerous, are of a bright crimson.

14. THORNY

14. THORNY BINDWEED.

Plate 7. Fig. 1.

Character of the Species.

Convolvulus aculeatus.

The Leaves are heart-shaped ; and the Stalks are thorny.

Fig. 1. *a b.*

THIS is a Perennial, native of South America, as also of Africa, and some other of the hot climates ; a scrambling Plant of no great beauty ; flowering in August. The Stalk is firm, brownish, covered with irregular Thorns, and by climbing upon other things, rises to twenty feet in height : the Leaves are of a strong green : the Flowers are of a pale crimson, with five green ribs behind.

THE purging qualities possessed by the Bindweeds in general are said to reside in this, with a degree of mildness which would place it, if the accounts can be depended upon, far above the others. Some Plants, seeming to be of this Species, were raised last year in the noble stove in the exotic garden of her Royal Highness the Princess of Wales at Kew : They run up to the top of that vast structure, but did not flower. In winter they died down to the root ; but they are now shooting thence again, and probably will flower this season. The *Bona Nox* of authors differs only from this in the colour of the Flower, and bigness of the Leaves ; both owing to its growing more in shade upon the banks of rivers : the Flower there is white, but still preserves the green ribs of this, though it wants the tint of crimson.

15. ROUGH-STALK'D BINDWEED.

Plate 7. Fig. 2.

Character of the Species.

Convolvulus Malabarius.

The Stalk is covered with a kind of beard of firm hairs ; the Leaves are heart-shaped, smooth, and glossy.

Fig. 2. *a b c.*

THIS is a Perennial, and an Ever-green ; the whole Plant remaining fresh throughout the year, and flowering at all seasons : It is a native of Asia, and climbs the Palms which grow upon the sands of the Malabar coast, to forty feet in height. The Stalk is brown, and the hairs which cover it are of the same colour : the Leaves are of a bright green : the Flowers are yellow, but they have a very beautiful crimson base.

16. EVER-GREEN SOFT BINDWEED.

Plate 7. Fig. 3.

Character of the Species.

Convolvulus Canariensis.

The Leaves are oblong, hearted, and soft and downy ; the Flowers grow in little clusters.

Fig. 3. *a b c.*

THIS is a Perennial, that keeps its Leaves all the year ; a beautiful Plant : it runs to eight or ten feet high, and flowers in June. The Leaves and Stalks are whitish : the Flowers are of a delicate crimson.

17. V A-



*Rough-stalked
Bindweed*

Evergreen soft Bindweed

Thorny Bindweed



Yellow Blunt Bindweed

Various Bindweed

Fiddle leaved Bindweed.

THE VEGETABLE SYSTEM.

17. VARIOUS BINDWEED.

Plate 8. Fig. 1.

Character of the Species.

Convolvulus Carolinianus.

The Leaves are some heart-shaped, others cut into three Lobes, like Ivy Leaves: the Flowers stand two upon a Stalk: the Cups are smooth, and the Seed-vessels hairy.

Fig. 1. *a b c d.*

THIS is a Perennial, native of Carolina: a climbing Plant of seven or eight feet high; flowering in August. The Stalk is pale: the Leaves are of a pleasing green, a little covered with a flight down: the Flowers are of a very beautiful crimson, diversified with a kind of white Star, which is from the plaits or foldings of the Petal being of that colour. The Flowers of this Species, though usually and naturally two on each Footstalk, sometimes stand singly; and the whole Plant has sometimes a considerable covering of the downy hairs; and at others is almost totally divested of them. This, with the different form of its Leaves, very well entitles it to the distinctive name of Various.

18. YELLOW BLUNT BINDWEED.

Plate 8. Fig. 2.

THE SCAMMONY PLANT.

Character of the Species.

Convolvulus Scammonea dictus.

The Leaves are arrowed, but the beards cut bluntly off: the Flowers stand two on each Footstalk.

Fig. 2. *a b c.*

THIS is a Perennial, native of Asia and Africa: a Plant that trails upon the ground with Stalks of four or five feet long, round, green, and juicy. The Leaves are of a fresh and pleasant green: the Flowers are of a pale dead yellow. The Root of this Plant yields the drug called Scammony; a powerful, but very uncertain purgative. They wound it, and place shells to receive the white juice that runs from it, which grows of a dark grey as it hardens. I believe it is often adulterated, for some parcels have very little virtue.

19. FIDDLE-LEAVED BINDWEED.

Plate 8. Fig. 3.

Character of the Species.

Convolvulus panduratus.

The Leaves are oblong, hearted at the base, and scooped in at the sides.

Fig. 3. *a b c.*

THIS is a Perennial, native of the barren and dry lands in North America: a Plant that trails upon the ground, with Stalks of near a yard long; and flowers in August. The Leaves are of a fine green: the Stalks are reddish: the Flowers are large and white, with a pale blush of crimson. They cover the Plant all the latter part of summer.

THE Character of the Leaves is to be sought in the lower ones; the upper are often trilobate.

20. LITTLE-FLOWERED BINDWEED.

Plate 9. Fig. 1.

Character of the Species.

The Leaves are oblong, a little hearted, sharp at the points, and glossy :
the Flowers stand single, and the Stalk trails.

*Convolvulus Siculus.*Fig. 1. *a b c d e.*

THIS is an Annual, a pretty little Plant, native of Sicily ; flowering in July. The Stalks trail upon the ground, or scramble among the grass, to ten or twelve inches in length : the Leaves are of a fine green, and have a glossy surface : the Flowers are small, and of a very delicate blue.

21. SHORT-LEAV'D PETTY BINDWEED.

Plate 9. Fig. 2.

Character of the Species.

The Leaves are broad, short, and obtuse : the Stalk trails : and the
Flowers stand single.

*Convolvulus nummularius.*Fig. 2. *a b c.*

THIS is an Annual, native of the moist grassy spots in Jamaica and Barbadoes, principally at the edges of woody grounds : a Plant that lies upon the ground, with branchy Stalks of eight or ten inches long ; and flowers in June. The Leaves are of a fresh, but somewhat yellowish green : the Stalks are brownish : the Flowers are of a very delicate blueish crimson, of the Violet kind, but paler.

22. ROUGH SCATTERY BINDWEED.

Plate 9. Fig. 3.

Character of the Species.

The Leaves are oval and hairy : the Flowers grow three on a Stalk.

*Convolvulus Alfinoides.*Fig. 3. *a b c.*

THIS is an Annual, native of Asia, and common about our settlements in the Indies : a little Plant that spreads its ten-inch Stalks every way upon the ground, and is very easily overlooked, except in flower. The Stalks are brown : the Leaves are of a faint blueish green, and hairy : the Flowers are of a pale flesh colour, often nearly white. It flowers in August.

23. THE TRIDENT BINDWEED.

Plate 9. Fig. 4.

Character of the Species.

The Leaves are broad and dented at the base, and have three points at
the end.

*Convolvulus tridentatus.*Fig. 4. *a b c.*

THIS is another of the petty kinds of Bindweed, easily overlooked, but worthy observation, the Leaves being altogether singular. It is an Annual, native of the Indian sands : a Plant that lies upon the ground to six or eight inches in length ; and flowers all summer. The Stalks are brown : the Leaves are of a faint and dead green : the Flowers are crimson.



Little flowerd Bindweed



Short leaved Petty Bindweed



Rough Scattery Bindweed



Trident Bindweed



24. SILK-CUP'D BINDWEED.

Plate 10. Fig. 1.

Character of the Species.

Convolvulus lineatus.

The Leaves are lanced and have high ribs : the Flowers stand two on a Footstalk ; and their Cups are silky, whitish, and leafy. Fig. 1. *a b c d.*

THIS is an Annual, native of the southern parts of Europe : a very handsome Plant ; flowering in July and August. The Stalk leans in part upon the ground, but raises itself three, four, or five inches towards the top ; it is of a pale green : the Leaves also are pale, and of a glossy aspect : the Flowers are large, and of a light, but elegant blue, with a kind of white Star formed of the folds of the Flower.

25. GAUDY BINDWEED.

Plate 10. Fig. 2.

Character of the Species.

LESSER CONVULVULUS.

Convolvulus tricolor.

The Leaves are lanced, obtuse, wavy, and smooth : the Stalk leans : and the Flowers grow singly on their Footstalks. Fig. 2. *a b c d e.*

THIS is an Annual, native of all the southern parts of Europe, and also of Africa : a low Plant, but very beautiful ; flowering in profusion all the latter part of summer. The Stalk is about a foot long, but a third part of it usually lies upon the ground ; the colour is a pale green : the Leaves are of the same green : the Flowers are very large, numerous, and beautiful ; they are blue, with a white Star and a golden Eye. Its great shew, and easy culture, long since gave, and have preserved it a place in our gardens.

26. SNIPED BINDWEED.

Plate 10. Fig. 3.

Character of the Species.

Convolvulus repens.

The Leaves are arrowed, and their beards cut off square : the Stalk creeps, and winds along upon the ground : the Flowers stand single. Fig. 3. *a b c.*

THIS is a Perennial, native of Virginia, and other parts of America, principally towards the sea coasts : a weak Plant, with Stalks a foot and half in length, but lying all the way upon the ground. The Stalk is green : the Leaves are also of a fine fresh green : the Flowers snow-white ; they appear in August.

27. ROUND-EAR'D BINDWEED.

Plate 10. Fig. 4.

Character of the Species.

Convolvulus reptans.

The Leaves are arrowed, but with obtuse rounded beards : the Flowers stand single. Fig. 4. *a b c.*

THIS is a Perennial, native of the East Indies : a weak Plant, of a foot in length ; flowering in July. The Stalk is very slender and green : the Leaves are of a somewhat dusky green : the Flowers are crimson.

28. UPRIGHT

28. UPRIGHT SILVER BINDWEED.

Plate II. Fig. 1.

Character of the Species.

The Stalks are upright: the Leaves are lanced, obtuse, and delicately hairy: the Flowers stand in clusters.

Convolvulus Cneorum dictus.

Fig. 1. a b c.

This is a Perennial, native of all the South of Europe, and of the Levant Islands: a Plant of two feet high, extremely elegant; flowering in July and August. The Stalks and Leaves are of a silvery white, covered with a very fine down: the Flowers are large, and of a pearly white; and as they naturally rise in clusters at the tops of the Plant, they make a very beautiful appearance.

29. FORKY BINDWEED.

Plate II. Fig. 2.

Character of the Species.

The Leaves are linear, a little swelling in the middle: the Flowers stand on split, or forked Footstalks: the Stalk leans.

Convolvulus Cantabrica dictus.

Fig. 2. a b c d.

THIS is a Perennial, native of Italy, Sicily, and the South of France: a Plant of eight or ten inches in height; flowering in June. The Stalks are whitish and hairy: the Leaves also are of a pale, and somewhat whitish green: the Flowers are large, and of a bright and shining crimson.

30. HEARTED UPRIGHT BINDWEED.

Plate II. Fig. 3.

Character of the Species.

The Stalk is perfectly upright: the Leaves are heart-shaped and hoary: the Flowers stand singly.

Convolvulus Spithameus.

Fig. 3. a b c.

THIS is an Annual, native of Virginia: a petty Plant, but not without its prettiness; flowering in August. The Stalks are pale and greyish, and seldom exceed six or eight inches in height: the Leaves also are of a greyish green: the Flowers are of a pale, but not unpleasing crimson.

31. OVAL WOOLLY BINDWEED.

Plate II. Fig. 4.

Character of the Species.

The Leaves are oval and woolly: the Stalk leans: and the Flowers stand singly.

Convolvulus Perficus.

Fig. 4. a b c d.

THIS is a Perennial, native of Persia and the Indies: a Plant of six or eight inches high, and of no great beauty; flowering in June. The Stalks are pale: the Leaves are of a whitish, or ashy green: the Flowers are of a pale crimson, with a white Star made by the platings of the Petal; as is usual in many of this kind, but in few so conspicuous as in this.

32. SPREAD-



Hybrid Bindweed.



Upright silver Bindweed.



Vol 7
Hearted Upright Bindweed.



Oval Woolly Bindweed.



Upright Silver Bindweed 1



Forky Bindweed 2



Hearted Upright Bindweed 3



Oval Woolly Bindweed 4



*Lobate hearted
Bindweed.*



Spreading Bindweed.



Rock Bindweed.



Nosegay Bindweed.

32. SPREADING BINDWEED.

Plate 12. Fig. 1.

Character of the Species.

Convolvulus Gangeticus.

The Leaves are hearted and obtuse, but with a small point annexed: the Stalk spreads every way upon the ground: the Flowers stand single.

Fig. 1. *a b c d.*

THIS is a Perennial, native of the East Indies: a Plant that makes a great figure by its spreading Branches, and large and numerous Flowers, which appear in July and August. The Stalks are weak and lie upon the ground, but they grow to two feet or more in length; their colour is a pale green: the Leaves are of a pale, and somewhat greyish green, and lightly hairy: the Flowers are of a very elegant crimson, and have a gloss like satin.

33. LOBATE-HEARTED BINDWEED.

Plate 12. Fig. 2.

Character of the Species.

Convolvulus Althæoides.

The Leaves are hearted, but cut deep into spreading lobes: the Flowers stand two upon a Footstalk.

Fig. 2. *a b c.*

THIS is a Perennial, native of the southern parts of Europe, as also of Africa and the Levant Islands: a Plant of great singularity as well as beauty, flowering all the latter part of summer. The Stalk is pale and lies upon the ground, but is a foot and half, or more, in length: the Leaves are of a faint, but pleasing whitish green, and are covered with a light down, which makes them soft like velvet to the touch: the Flowers are large, and of a bright fine crimson. The Leaves of this Plant vary greatly in the depth of their divisions, but the general form of the outline is always the same.

34. NOSEGAY BINDWEED.

Plate 12. Fig. 3.

Character of the Species.

Convolvulus linifolius.

The Leaves are linear, with some breadth, and hairy: the Flowers grow in bunches.

Fig. 3. *a b c.*

THIS is a Perennial, native of the southern parts of Europe, and of the Levant Islands: a Plant of two feet high; flowering in August. The Stalk is pale and hairy: the Leaves are of a faint, but not unpleasant green: the Flowers are crimson, and they stand in clusters in the manner of a nosegay: the Leaves have been compared to those of flax, but with me they are much broader.

35. ROCK BINDWEED.

Plate 12. Fig. 4.

Character of the Species.

Convolvulus saxatilis.

The Leaves are broad, lanced, and downy: the Flowers stand singly on very long Footstalks.

Fig. 4. *a b c.*

THIS is a Perennial, native of the rocks of Sicily and Crete: a beautiful Plant; flowering in August. The Stalk is of a whitish colour, only crimson at the joints: the Leaves are of a dead white green: the Flowers are large and crimson.

36. SHIELD-LEAVED BINDWEED.

Plate 13. Fig. 1.

Character of the Species.

The Leaves are round, and waved at the edge, and their Footstalk is inserted in the center: the Flowers stand in clusters.

Convolvulus peltatus.

Fig. 1. a b c.

THIS is an Annual, native of Amboyna: a very singular and elegant Plant; flowering in August. The Stalk is brown; it climbs to the height of five or six feet: the Leaves are of a pale, but not very pleasing green: but the Flowers make amends; they are numerous, and of a beautiful crimson.

37. FIVE-LEAVED FORKY BINDWEED.

Plate 13. Fig. 2.

Character of the Species.

The Leaves are composed each of five broad indented parts: the Flowers stand in pairs, their Footstalks splitting forkwise.

Convolvulus Cairicus.

Fig. 2. a b c.

THIS is a Perennial, native of Egypt: a Plant that runs, by climbing among bushes, to the height of seven or eight feet; flowering in July. The Stalk is of a dusky green, tinged with brown: the Leaves are of a deep dark green: the Flowers are of a beautiful crimson.

38. SEVEN-LEAVED FORKY BINDWEED.

Plate 13. Fig. 3.

Character of the Species.

The Leaves are composed each of seven parts: the Flowers grow by two's on forky Footstalks.

Convolvulus Ægypticus.

Fig. 3. a b c.

THIS is a Perennial, native of the dry high grounds of Egypt, wherever there are bushes; it climbs among these to eight feet high; and flowers in June. The Leaves are of a deep, yet somewhat bluish green: the Stalk is of a paler green, but tinged with brown: the Flowers are of a strong and elegant crimson.

39. THREE-FLOWERED SEVEN-LEAVED BINDWEED.

Plate 13. Fig. 4.

Character of the Species.

The Leaves are composed of seven parts: and the Flowers grow three on a Footstalk.

Convolvulus Macrorrhizos.

Fig. 4. a b c.

THIS is a Perennial, native of South America: a Plant that climbs among the trees in their forests to fourteen feet high; and flowers in August, making at that time a most splendid figure. The Stalk is of a pale green, but usually brown on the sunny side: the Leaves are of a pale and faint green: but the Flowers are of a bright and fine crimson.

40. QUIN-



*Shielded
Bindweed*



*Five leaved Forky
Bindweed*



Seven leaved Forky Bindweed.



Three flowered Seven leaved Bindweed.



*Quinque foliate
Smooth Bindweed.*

*Harsh
five leaved Bindweed.
Vol. 7*

Fingered great Bindweed.

40. QUINQUEFOLIATE SMOOTH BINDWEED.

Plate 14. Fig. 1.

Character of the Species.

Convolvulus Quinquefolius.

The Leaves stand distinctly, five on each Footstalk: the whole Plant is smooth.

Fig. 1. *abc.*

THIS is a Perennial, native of South America: a climbing Plant, of ten feet or more in height; flowering in July. The Stalk is of a fresh green, smooth and glossy: the Leaves are also of a pleasing, though not strong green: the Flowers are large, and of a very good crimson. The out-skirts of the forests are the natural places of this Plant; and where the soil is in any degree damp in such spots, it covers almost every shrub.

41. FINGERED GREAT BINDWEED.

Plate 14. Fig. 2.

Character of the Species.

Convolvulus Serpens.

The Leaves stand five together on each Footstalk, disposed like fingers; they are smooth, and the Stalk is hairy.

Fig. 2. *abc.*

THIS is a Perennial, native of Mexico: a Plant that climbs to the tops of high trees; and flowers in August. The Leaves are of a fresh and bright green: the Stalk is brown, and covered with firm hairs: the Flowers are large, numerous, of a strong crimson, and have, in a small degree, that glossy aspect which we see in many of the Bindweeds.

42. HARSH FIVE-LEAVED BINDWEED.

Plate 14. Fig. 3.

Character of the Species.

Convolvulus macrocarpos.

The Leaves stand five upon each Footstalk; they are lanced, undivided at the edge; and both they and the Stalks are covered with harsh hairs.

Fig. 3. *abc.*

THIS is a Perennial, native of South America: a Plant of ten or twelve feet high, when supported for climbing; and flowers in July and August. The Stalk is naturally of a pale green, but is browned on the sunny side: the Leaves are of a deep and pleasant green; the hairs on these, and on the Stalk, are short, hard, and greyish: the Flowers are of a very pleasing crimson: the Seed-vessels are large, and are also crimson on the side next the sun.

ONE-

ONE-PETAL'D PLANTS.

T R I B E III.

Having the Flower divided.

F A M I L Y I.

With the Flower cut into three parts.

G E N U S I.

P I N E - A P P L E.

B R O M E L I A.

Character of the Genus.

The Cup has a three-cornered base, and is divided into three oval segments: the Flower has a short tube, and is cut into three large segments of a lanced form, each having a small connivent filmy gland near its base: the Fruit is oval, with three cells.

Plate 15. *a b c d.*

1. C R O W N E D P I N E - A P P L E.

Plate 15. Fig. 1.

Character of the Species.

ANANAS.
Bromelia comola.

The Leaves are sharp-pointed, and have a thorny eye-lashed edge: the Fruit is entire and compleat, and topped with a crown of Leaves. Fig. 1. *ab.*

THIS is a Perennial, native of Africa and the West Indies: a Plant of great singularity, and sufficiently valued for its large, juicy, and high-flavour'd Fruit. It grows to about two feet in height; and flowers naturally in February. With us who keep it in an artificial heat, seasons are nearly equal; and it is not easy, from what we see here, to determine either the time of the appearance of any part, or the entire duration of the whole; but Nature so far prevails even in this forced state, that no Pine-apples are so good as those of June, which ripen from the February shoot.

THE Leaves are of a fresh green: the Flowers are pale: and the Fruit is yellowish. The first Pine-apples we had in Europe were of the oval shape, and whitish when cut: the conic yellow kind we now raise are pleasanter and more wholesome.

2. B R O K E N P I N E - A P P L E.

Plate 15. Fig. 2.

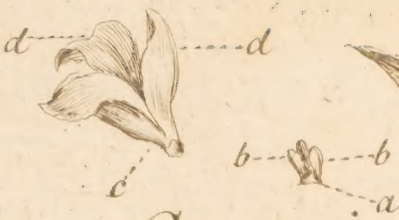
Character of the Species.

Bromelia Pinguin dicta.

The Leaves are sharp-pointed, and edged with thorns: the Fruit is broken as it were into many separate parts, and has no crown of Leaves. Fig. 2. *ab.*

THIS is a Perennial, native of Jamaica: a Plant of two feet high; flowering in May. The Leaves are of a fresh green, covered with a light greyish mealy matter, and armed with brown Thorns: the Flowers are of a dull, but pale crimson; but the whole head makes a handsome figure from the red Leaves under the sets of Flowers: the Fruit is dry and yellow.

3. C L U S T E R Y.



Generic
Character.



Crowned Pineapple.

Broken Pineapple.

2



Clustery
Pine apple.

Sawd
Pine apple.

Various leaved Pine apple.

3. CLUSTERY PINE-APPLE.

Plate 16. Fig. 1.

Character of the Species.

Bromelia Caratã;

The Leaves are pointed, and have a thorny edge; and the head is divided into a broad open cluster.

Fig. 1. *abc.*

THIS is a Biennial, native of South America; a Plant of two feet, or more, in height, flowering in June. The Leaves are of a blueish green; and by their great length, and the various manner in which they bend and play about, afford a pleasing picturesque appearance: the Stalk is thick, juicy, round, and covered with a light greyish meal: the Flowers are of a dead crimson.

4. SAWED PINE-APPLE.

Plate 16. Fig. 2.

Character of the Species.

Bromelia Ligulata;

The Leaves are obtuse at the end, and sawed at the edge, and thorny; the head is composed of several distinct alternate spikes.

Fig. 2. *abcd.*

THIS is a Perennial, native of South America; a Plant of two or three feet high, flowering in May. The Leaves are of a strong deep green: the Stalk is juicy, and pale, and is covered with a white dust: the Flowers are of a very pale and dull crimson.

THIS Plant differs greatly in its general aspect from the former: The Leaves stand erect, and the whole appears firm, and bushy.

5. VARIOUS-LEAVED PINE-APPLE.

Plate 16. Fig. 3.

Character of the Species.

Bromelia Nudicaulis;

The lower Leaves are dented, and thorny; the upper undivided, and unarmed; the head is loose, and pyramidal.

Fig. 3. *abc.*

THIS is a Perennial, native of South America; a robust Plant, of three feet high, flowering in May. The Leaves are of a deep green; and the Thorns upon their edges are black: the Stalk is thick, and juicy: the Flowers are of a pale greenish colour, and make no great appearance.

THE four last Plants of this Genus have been disputed as to the proper Character, but they are truly Pine-apples, though they have no eatable Fruit.

ONE-PETALED PLANTS.

With a divided Flower.

FAMILY II.

Having the Flower cut into four parts.

ORDER I.

With the Flower Bell-fashioned.

GENUS I.

MADDER.

RUBIA.

Character of the Genus.

The Cup is very small, rounded, and dented in four; the Flower has no tube, but is bell-shaped, and cut into four obtuse Segments; the Fruit consists of two smooth, juicy Berries, adhering to each other; the Seeds are roundish, and dented, one only in each Berry.

Plate 17. *a b c d e f*.

1. SIX-LEAVED MADDER.

Plate 17. Fig. 1.

Character of the Species.

Rubia Tinctorum.

The Leaves grow six at each Joint.

Fig. 1. *a*.

THIS is a Perennial, native of Germany, and some parts of France; a Plant of no great beauty, but of great value; flowering in June. The Stalk is thick, ribbed, branched, beset with hairs almost as hard as bristles, and grows to two foot and a half high: the Leaves are of a pale green: the Flowers are small, and yellow: the Berries, when ripe, are of so deep a purple, that they are nearly black. The root of this Plant is the Madder used in dying. It may be useful to those who wish to cultivate it, to know that the Plant will grow very freely from cuttings, and make good Roots that way, and a great quantity of them: the Berries ripen yearly with me at Bayswater, and from the Seeds in them young Plants rise freely; but the other ways of cuttings and offsets are so easy, this is not worth practice. I name it because of a popular error, that Madder does not ripen Seeds in England.

2. FOUR-LEAVED MADDER.

Plate 17. Fig. 2.

Character of the Species.

Rubia Peregrina.

The Leaves grow four on each Joint.

Fig. 2. *a*.

THIS is a Perennial, native of Minorca; a Plant of two foot high, flowering in June. The Stalk is hard, and of a deep green: the Leaves are of a deep shining green: the Flowers are small, and of a dusky yellow.

MADDER

Pl. 17



Six leaved Madder

Fourleaved Madder

Generic Character



ONE-PETAL'D PLANTS.

With the Flower cut into four parts.

ORDER II.

Having the Flower flat.

GENUS I.

BEDSTRAW.

Character of the Genus.

The Cup is a small, round rim, placed on the Germ, and divided by four dents; the Flower has no tube, it is cut into four Segments, which are spread out quite flat: the Fruit consists of two round Capsules growing together; they are perfectly smooth, and each contains one kidney-shaped Seed.

Plate 18. *a b c d e f*.

1. RUGGED BEDSTRAW.

Plate 18. Fig. 1.

Character of the Species.

Gallium Ruboides.

The Stalk is erect, and firm; the Leaves stand four at a Joint; they are broad lanced, equal in size, and rugged on the under side.

Fig. 1. *a b c d*.

THIS is a Perennial, native of Spain, and of some other of the warmer parts of Europe; a Plant of a foot and a half high, flowering in August. The Stalk is firm, and brownish: the Leaves are of a deep, but somewhat blueish green on the upper side, and pale and rugged below: the Flowers are white; and the Fruit, when ripe, is of a glossy brown.

2. IRREGULAR BEDSTRAW.

Plate 18. Fig. 2.

Character of the Species.

Gallium Palustre.

The Stalk leans; the Leaves stand four at a Joint; they are oval, and unequal in size.

Fig. 2. *a b c d*.

THIS is a Perennial, native of our boggy grounds; a Plant of two foot in length, but seldom raised upright, flowering all the latter part of summer. The Stalk is brown: the Leaves are of a deep green: the Flowers are white; and the Seeds are brown, and smooth, but not shining.

3. SCATTERY BEDSTRAW.

Plate 18. Fig. 3.

Character of the Species.

Gallium Bermudense.

The Stalk is divided into a multitude of scattered Branches; the Leaves stand four at a Joint, and they are linear, and obtuse.

Fig. 3. *a b c d*.

THIS is a Perennial, native of the Bermudas, and many parts of Africa; a low Plant, scattered to a foot in length upon the ground, flowering in July. The Stalk is of a deep green: the Leaves are somewhat yellowish: the Flowers are white; and the Fruit, when ripe, is crimson.

4. HARD

4. HARD BEDSTRAW.

Plate 19. Fig. 1.

Character of the Species.

The Stalk is rugged, and leans; the Leaves are linear, and stand four at a Joint; the Flowers are usually cut in three parts. *Gallium trifidum.*
Fig. 1. a b c d.

THIS is a Perennial, native of Canada; a Plant of eight or ten inches in length; a part of which usually lies upon the ground: it flowers in August. The Stalk is brown, hard, and rugged: the Leaves are naturally of a strong green, often tinged with brown: the Flowers are small, and white; and the Fruit is of a deep and dusky brown.

WE are not to wonder at the division of the Flower into an irregular number of Segments: as one seems usually deficient in this; there is one usually also redundant in Matter, but it is of no importance, for four is the just division: some Flowers may always be found divided that way, and such alone are perfect.

5. WEAK BEDSTRAW.

Plate 19. Fig. 2.

Character of the Species.

The Leaves are linear; they stand four at a Joint on the Branches, but six at a Joint on the main Stalk; the Stalk is weak, and bends. *Gallium tinctorium.*
Fig. 2. a b.

THIS is a Perennial, native of North America; a low and weak Plant, seldom raising itself to ten inches in height: it flowers in August. The Stalks are brown; they are hard, yet weak, and bend about in a singular manner: the Leaves are of a strong, but somewhat blueish green: the Flowers are white; and the Seeds are of a pale brown.

THE Roots of this Plant are of a deep red, and stain lastingly.

6. BACK-SAWED BEDSTRAW.

Plate 19. Fig. 3.

Character of the Species.

The Stalk swells at the Joints; the Leaves stand six at a Joint; they are lanced, and sawed, and the teeth stand backward; the Flowers are larger than the Fruits. *Gallium uliginosum.*
Fig. 3. a b c d.

THIS is a Perennial, native of damp grounds, among rushes; a Plant of a foot and half high, flowering in August. The Stalk is brown: the Leaves are of a deep dull green: the Flowers are white; and the Seeds deep brown.

7. BOAT-LEAVED BEDSTRAW.

Plate 19. Fig. 4.

Character of the Species.

The Leaves stand six at a Joint; they are lanced, rugged, dented backwards, and hollowed like a boat. *Gallium spurium.*
Fig. 4. a b c.

THIS is an Annual, native of the fields and vineyards of France, and Italy; a Plant of a foot high, flowering in August. The Stalk is brown: the Leaves are of a pale green: the Flowers are white; and the Seeds brown.

8. OBTUSE

2



Hard Bedstraw



Weak Bedstraw



Vol 7.

Back Sand Bedstraw



Boat leaved Bedstraw.



Obtuse Bedstraw



Prickly Bedstraw

8. OBTUSE BEDSTRAW.

Plate 20. Fig. 1.

Character of the Species.

Gallium saxatile.

The Stalk leans, and is very much branched: the Leaves stand six at a joint, and are oval and obtuse.

Fig. 1. *abc.*

THIS is an Annual, native of the rocky coasts of Spain and Italy, and of Minorca: a little leaning Plant of a foot long, but very bushy; flowering in July. The Stalk is brown, and hard towards its base: the Leaves are soft to the touch, and of a delicate green: the Flowers are white: the Seeds are large, and of a very pale brown.

9. PRICKLY BEDSTRAW.

Plate 20. Fig. 2.

Character of the Species.

Gallium minutum.

The Leaves stand eight at a joint: they are lanced, sharp-pointed, and dented, with hard points to the dents; they are smooth on the surface, and turn down.

Fig. 2. *abcd.*

THIS is a Perennial, native of the dry grounds in China, Tartary, Russia, and some parts of Germany: a little Plant, but singular; flowering nearly all the summer. The Stalk is of a pale reddish brown: the Leaves are of a pale green, but their hard points, and the tips of all the dents, are brown: the Flowers are of a delicate yellow: the Seeds are large and brown.

10. RUGGED BEDSTRAW.

Plate 20. Fig. 3.

Character of the Species.

Gallium pusillum.

The Footstalks of the Flowers are forked, and one Flower stands on each division: the Leaves are linear, sharp-pointed, covered with firm hairs, and stand eight at a joint; the joints are close and short.

Fig. 3. *abcd.*

THIS is a Perennial, native of France and Germany, on barren soils: a little Plant, scarce rising to six inches high; and flowers in June. The Stalks are of a dusky reddish brown; the Leaves are of a dead green, with somewhat of a blueish cast; the Flowers are white; and the Seeds are moderately large, and of a dead brown.

II. GOLDEN BEDSTRAW.

Plate 21. Fig. 1.

Character of the Species.

The Leaves are linear and furrowed, and they stand eight at a joint: the Flowers stand thickly clustered upon short Footstalks.

LADIES BEDSTRAW, OR CHEESE RENNING.
Gallium verum.

Fig. 1. a b c.

THIS is a Perennial, native of our dry banks and hilly pastures: a Plant of two feet high; flowering in June. The Stalks are brown, firm, and upright: the Leaves are of a dark green: the Flowers are of a gold yellow; and by their vast number make a very handsome appearance: the Seeds are small brown.

If milk be stirred about with the flowery tops of this Plant it presently curdles: our ancestors used it in their dairies for this purpose; and hence it obtained the English name CHEESE RENNING.

12. SPREADING BEDSTRAW.

Plate 21. Fig. 2.

Character of the Species.

The Leaves stand eight at a joint; they are linear, with some breadth, obtuse, lightly dented, and terminated by a point, and they stand wide expanded.

Gallium Mollugo dictum.

Fig. 2. a b c d.

THIS is a Perennial, native of our hedge sides in pasture grounds: a scrambling spreading Plant of two feet high; flowering in June. The Stalk is pale green, tinged with brown: the Leaves are of a fresh and strong green: the Flowers are numerous, and perfectly snow white: the Seeds are small, and of a faint brown.

13. TEN-LEAVED BEDSTRAW.

Plate 21. Fig. 3.

Character of the Species.

The Leaves stand ten at a joint: they are linear, but a little swelled in the middle: the Flowers stand in a broad cluster at the head of the Stalk.

Gallium Hierosolymitanum.

Fig. 3. a b c d.

THIS is a Perennial, native of Syria, and the mountainous parts of Asia: an upright, firm, and very pretty Plant, of a foot and half in length; flowering in June. The Stalk is firm, and of a pale green: the Leaves are of a somewhat stronger green; the Flowers are white, and when in perfection, make a very pretty appearance; they have also a pleasing scent, though very flight.

IT is the custom to join the Bedstraws and the Cleavers into one Genus; but the Species are very numerous; and the Fruits afford so obvious a distinction, that it is far better to keep them asunder. It is not a single instance that our plain ancestors were sometimes more in the right than their refined descendants.

14. BLUE-



Ten leaved
Bedstraw

Golden Bedstraw.

Spreading Bedstraw.



Bluegreen
Bedstraw

3
Crimson
Bedstraw

2
Bristly Bedstraw

14. BLUE-GREEN BEDSTRAW.

Plate 22. Fig. 1.

Character of the Species.

Gallium glaucum.

The Leaves are linear and smooth : the Flowers grow only at the tops of the Stalks ; and always on forked Footstalks.

Fig. 1. *a b c.*

THIS is a Perennial, native of France and Germany : a weak, but upright Plant of a foot high ; flowering in June. The Stalk is of a pale green ; and it swells into brownish knobs at the joints : the Leaves are of a dull and dusky blueish green : the Flowers are white ; the Seeds are small, and of a faint brown.

15. BRISTLY BEDSTRAW.

Plate 22. Fig. 2.

Character of the Species.

Gallium purpureum.

The Leaves are linear and bristly : the Footstalks of the Flowers are longer than the Leaves.

Fig. 2. *a b.*

THIS is a Perennial, native of Italy and Spain : a Plant of about a foot in height ; flowering in July. The Stalk is weak, of a pale brown, and usually sun-burnt : the Leaves are of a dull unpleasant green : the Flowers are of a dull and dusky purple ; and the Seeds are brown.

16. CRIMSON BEDSTRAW.

Plate 22. Fig. 3.

Character of the Species.

Gallium rubrum.

The Leaves are linear and harsh : the Stalk is erect and branchy : the Footstalks of the Flowers are short and clustery.

Fig. 3. *a b c d.*

THIS is a Perennial, native of Italy and the South of France : an upright branchy Plant of ten or twelve inches high ; flowering in June. The Stalk is of a ruddy brown : the Leaves are of a pale and deadish green : the Flowers are of a bright and beautiful crimson.

G E N U S II.

C L E A V E R S.

A P A R I N E.

Plate 23.

Character of the Genus.

The Cup is a small rim placed on the rudiment of the Fruit, and having four dents: the Flower is cut into four small sharp-pointed segments, and spreads flat open; it has no tube: the Fruit is composed of two round Seed-vessels, COVERED WITH RUGGED AND FIRM HAIRS, and each contains one Seed.

Plate 23. *a b c d.*

I. H O O K E D C L E A V E R S.

Plate 23. Fig. 1.

Character of the Species.

The Leaves stand eight at a joint; they are lanced and hollowed lengthwise; they are covered with stiff hairs, which turning backward become hooks.

*Gallium aparine.*Fig. 1. *a b c d.*

THIS is an Annual, native of our banks and hedges: a rugged Plant, that sticks to every thing it touches: and flowers in July. The Stalk is of a pale green: the Leaves are somewhat deeper: the Flowers are white; and the Seeds pale brown: the Stalk, by the help of bushes, will grow to a yard high.

2. T H R E E - R I B B E D C L E A V E R S.

Plate 23. Fig. 2.

Character of the Species.

The Leaves stand four at a joint, and are narrow, lanced, and marked with three high ribs: the Stalk is upright; and the whole Plant is smooth.

*Gallium Boreale.*Fig. 2. *a b c d.*

THIS is a Perennial, native of damp grounds throughout the north of Europe: a Plant of a foot and half high; flowering in August. The Stalk is firm and brown: the Leaves are of a strong and fine green: the Flowers are white; and the Seeds pale brown.

3. B R O A D - L E A V E D C L E A V E R S.

Plate 23. Fig. 3.

Character of the Species.

The Leaves stand four at a joint; they are broad, oval, and obtuse.

*Gallium rotundifolium.*Fig. 3. *a b c d.*

This is a Perennial, native of Hungary and Switzerland: a Plant of ten inches high; flowering in August. The Stalk is pale green: the Leaves are of a very fine green: the Flowers are white; and the Seeds pale brown.

4. L I N E A R C L E A V E R S.

Plate 23. Fig. 4.

Character of the Species.

The Leaves are linear, and the Flower Stalks are forked.

*Gallium Parifense.*Fig. 4. *a b.*

THIS is an Annual, native of our damp bushy places: a Plant of ten inches high; flowering in April. The Stalk is brown: the Leaves are a deep green: the Flowers are white; and the Seeds are brown.

G E N U S



Generic
Character.



Hooked Cleavers



Three ribd
Cleavers



Broad leaved Cleavers



Linear. Cleavers

^{a d e b}
Generic
Character.



GENUS III.

CROSSWORT.

VALANTIA.

Plate 24.

Character of the Genus.

The Cup is nothing more than a waved Film at the top of the Germ ; the Flower has no tube ; it is flat, expanded, and cut into four Segments, with broad bases and sharp points ; the Fruit is an oblong, tough, filmy Capsule, turning back at the end, and containing one Seed, which is large, and nearly round : There are male and hermaphrodite Flowers on the Plants.

Plate 24. *o a b c d e.*

1. BROAD-LEAVED CROSSWORT.

Plate 24. Fig. 1.

CROSSWORT.

Character of the Species.

Valantia Cruciata dicta.

The Leaves stand four at a Joint ; they are oval, and without Footstalks ; the Flowers stand in clusters at the Joints, upon short Footstalks, each of which has two Leaves.

Fig. 1. *a b c d.*

THIS is a Perennial, native of our dry banks and hilly pasture grounds ; a Plant of a foot and half high, but weak, and often leaning on the ground ; it flowers in May. The Stalks are pale, and yellowish : the Leaves are of a faint green : the Flowers are small, and of a bright yellow.

2. GLOSSY CROSSWORT.

Plate 24. Fig. 2.

Valantia muralis.

Character of the Species.

The Leaves are lanced, and sharp pointed, and they stand four at a Joint ; the male Flowers are cut only into three parts ; and the Seed-vessel is broad, and dented.

Fig. 2. *a b c d.*

THIS is an Annual, a petty Plant, native of the rocks and walls of Italy, and of the South of France ; where it scarce reaches four inches in length, and leans the greater part of it : it flowers in June. The Leaves and Stalk are both of a pale green, but smooth, and glossy : the Flowers are yellow ; and the Seeds are brown.

3. RUGGED-CUP'D CROSSWORT.

Plate 24. Fig. 3.

Valantia hispida.

Character of the Species.

The Leaves are lanced, and obtuse, they stand four at a Joint ; the male Flowers are cut into three parts ; and the Seed-vessel, with its Cup, is rugged.

Fig. 3. *a b c.*

THIS is an Annual, native of Spain ; a Plant of four inches high, flowering in June. The Stalk is pale : the Leaves are of a yellowish green : the Flowers are yellow.

4. FILMY CROSSWORT.

Plate 24. Fig. 4.

Valantia cucullata.

Character of the Species.

The Germ is covered with an oval Film ; the Leaves stand four at a Joint.

Fig. 4. *a b.*

THIS is an Annual, native of Switzerland ; a Plant of four inches high, flowering in June. The Stalk is yellowish : the Leaves are of a faint green : the Flowers are yellow.

5. BLOATED CROSSWORT.

Plate 25. Fig. 1.

Character of the Species.

Valantia Hypocarpia.

The Leaves are lanced, sharp-pointed, and placed four at a Joint; the base of the Flower is bloated, and filled with the Germ.

Fig. 1. a b c.

THIS is a Perennial, native of Jamaica; a Plant of ten or twelve inches high, flowering in June. The Stalk is hard, and brown: the Leaves are of a deep green: the Flowers are white; and they have all four Segments.

WE have received a singular variety of this Plant last year from Guadaloupe; with the Flowers considerably larger, and of a delicate crimson.

6. HARD-LEAVED CROSSWORT.

Plate 25. Fig. 2.

Character of the Species.

Valantia Aparine dicta.

The Leaves stand eight at a Joint; and they are hard, and covered with firm hairs; the male Flowers have only three segments.

Fig. 2. a b c.

THIS is an Annual, native of the cultivated grounds of France, Spain, and Germany; a Plant of a foot and half high, flowering in June. The Stalk is brown, and hard: the Leaves are of a deep green: the Flowers are white; and the Seed is brown.

7. JOINTED CROSSWORT.

Plate 25. Fig. 3.

Character of the Species.

Valantia articulata.

The Stalk swells into lumps at the Joints; all the Flowers have four Segments; the Leaves stand four at a Joint.

Fig. 3. a b c.

THIS is a Perennial, native of Ægypt, Syria, and all the country thereabouts; a Plant of a foot and half high, flowering in August. The Stalk is brown, hard, and firm: the Leaves are of a strong and good green: the Flowers are of a faint, yet dusky yellow.

ORDER



Hard Leaved Crosswort

Bloated Crosswort

Jointed Crosswort



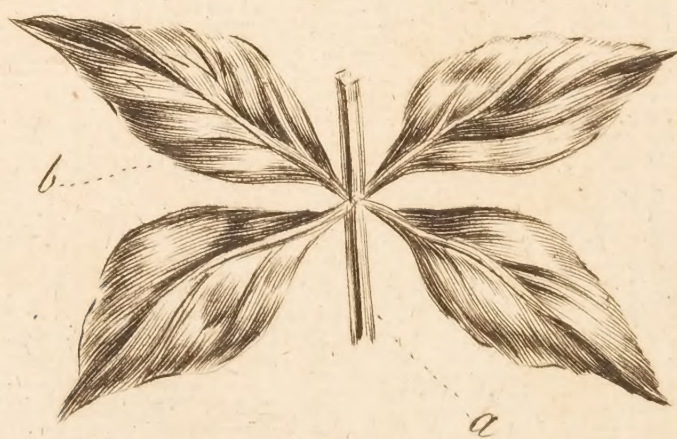
Generic
Character.



Broad leaved Woodruffe. 1



Lowclusterd
Woodruffe. 2



ORDER III.

Having the Flower tubulated at the base.

GENUS I.

WOODRUFFE.

ASPERULA.

Plate 26.

Character of the Genus.

The Cup is short, and cut into four dents at the edge; the Flower has a long tube; its verge is cut into four oblong Segments; they are obtuse, and turn back; the Fruit consists of two round Capsules which grow together, and each contains a single, large, round Seed. Plate 26. *a b c d*.

1. BROAD-LEAVED WOODRUFFE.

Plate 26. Fig. 1.

Character of the Species.

Asperula taurina.

The Leaves are broad, but lanced; they stand four at a Joint; the Flowers are placed in rising clusters at the tops of the Branches. Fig. 1. *a b c d*.

THIS is a Perennial, native of Italy, as also of Switzerland, and some part of Germany; a pretty Plant, of a foot high, flowering in May, and June. The Stalk is hard, yet weak; slender, and of a reddish brown: the Leaves are of a strong, but not very pleasing green: the Flowers are crimson. In the degree of colour in these there is a vast difference: in general where the Plant enjoys some shade, they are deep, and fine; when much exposed to the sun, they are pale. The contrary of this is true of many Plants, for the Flowers of *Laurustine* are white under shade, and redder as they have more sun; but particular Plants have their particular tendencies in this respect. The Water Violet deepens its colour in the shade as this. About a mile from Stretham it grows by the road side, in wet places, under hedges, and in open ponds; and the Flowers of those Plants which have the shelter of the hedge are very red; the others white.

2. LOW-CLUSTERED WOODRUFFE.

Plate 26. Fig. 2.

Character of the Species.

Asperula arvensis.

The Leaves are linear, and stand six at a Joint; the Flowers are placed in low clusters among the Leaves at the tops of the Branches. Fig. 2. *a b c d*.

THIS is an Annual, native of our corn fields, and those of France, Spain, and Germany; a low Plant, flowering in August. The Stalk is green; it leans in part upon the ground, and grows to a foot in length: the Leaves are of a pale, and somewhat greyish green: the Flowers are of a blueish crimson: they differ extremely, like those of the preceding, in the degree of their colour, as also in the prevalence of one or other tinct, being in some places much bluer, and in others much redder.

3. SWEET-SCENTED WOODRUFFE.

Plate 27. Fig. 1.

Character of the Species.

The Leaves are lanced, and they stand eight at a Joint; the Flowers are placed in loose clusters at the top of the Stalk, and have long Footstalks.

Asperula odorata.

Fig. 1. a b c.

THIS is a Perennial, native of our woods; a Plant of eight or ten inches high, flowering in August. The Stalk is hard, and of a dusky green: the Leaves are also of a deep green: the Flowers are white, and have a remarkably delicate sweet scent.

4. STRAGGLING WOODRUFFE.

Plate 27. Fig. 2.

Character of the Species.

The Leaves are linear; those toward the bottom are placed six at a Joint; those higher up four; the Stalk leans, and spreads.

Asperula tinctoria.

Fig. 2. a b c.

THIS is a Perennial, native of the rocky hills of Switzerland, and most other parts of Europe; a little leaning Plant, that flowers in August. The Stalks are weak, and pale: the Leaves are of a dull and dead green: the Flowers are white. When the soil is more than ordinarily barren, they are usually cut into three Segments, not four; but with me at Bayswater, where the Plant grows upon an artificial hill of stone, they have constantly the true fourfold division. The Root of this Plant affords a rich and lasting crimson for dying.

5. SQUINANCY WOODRUFFE.

Plate 27. Fig. 3.

Character of the Species.

The Leaves are three square, and awly; they stand six at a Joint towards the bottom of the Stalk, and four higher up.

Asperula Cynanchica.

Fig. 3. a b c.

THIS is a Perennial, native of our dry and barren hills; a Plant of six or eight inches high, flowering in July. The Stalk is reddish, and leans in part upon the ground: the Leaves are of a bright, but not very strong green: the Flowers are of a delicate, bright, but pale crimson.

6. FIRM WOODRUFFE.

Plate 27. Fig. 4.

Character of the Species.

The Leaves are linear, but a little lanced, and sharp-pointed; they stand four at a Joint; the Stalk is firm, and upright.

Asperula Pyrenaica.

Fig. 4. a b c.

THIS is a Perennial, native of the mountainous parts of Europe; a Plant of five or six inches high, flowering in August. The Stalk is firm, erect, and tinged with brown: the Leaves are of a pleasing green: the Flowers are of a pale, but very delicate crimson.

G E N U S



Stragling Woodruffe.

Sweet Scented Woodruffe.



Squinaney Woodruffe.



Firm Woodruffe.

RIM-WEED



Forked Rim-weed



Hard Rim-weed



Clustery Rim-weed.

G E N U S II.

R I M W E E D.

S H E R A R D I A.

Plate 28.

Character of the Genus.

The Cup is a permanent hard rim, furrounding the head of the Germ, and cut into four dents; the Flower has a strait, small tube at the base, and its edge is cut into four obtuse Segments, which turn back a little; the Fruit consists of two globular Capsules, which grow together, and each contains one Seed.

Plate 28. *a b c d e*.

I. C L U S T E R Y R I M W E E D.

Plate 28. Fig. 1.

Character of the Species.

Sherardia arvensis.

The Leaves are broad, and lanced; the Flowers stand in tufts on short Footstalks; and there is a kind of general mantle at the head of the Stalk.

Fig. 1. *a b*.

THIS is an Annual, native of our corn fields; a Plant of a foot long, but lying for the greatest part upon the ground; it flowers in July. The Stalks are brown: the Leaves are of a brownish green: the Flowers are blue. The Mantle at the base of the cluster of Flowers in this Plant approaches absolutely to the general Cup of the Aggregates; connecting them and the Umbrellas with this naturally succeeding Order.

2. F O R K E D R I M W E E D.

Plate 28. Fig. 2.

Character of the Species.

Sherardia muralis.

The Flowers stand by twos upon forked Footstalks, with two little Leaves at the base of the division; the Leaves are linear, and obtuse.

Fig. 2. *a b c*.

THIS is an Annual, native of Italy, and Spain; a little Plant, that spreads itself upon old walls and rocks to five or six inches in length, and flowers in June. The Stalk is brown: the Leaves are of a blueish green: the Flowers are yellow, small, and inconsiderable.

3. H A R D R I M W E E D.

Plate 28. Fig. 3.

Character of the Species.

Sherardia fruticosa.

The Stalk is woody; the Leaves are linear, and sharp-pointed, and stand by fours.

Fig. 3. *a b c*.

THIS is a Perennial, native of the Isle of Ascension; a woody Plant, of three feet high, flowering in August. The Stalk is rugged, and brown: the Leaves are of a bright green: the Flowers are white.

GENUS III.

SPURWEED.

CRUCIANELLA.

Character of the Genus.

The Cup is formed of two harsh, filmy Leaves, swelling at the back, hollowed within, lanced, and convergent; the Flower has a long, slender, cylindric tube; the rim is cut into four Segments, with narrow points, which turn back; the Fruit is composed of two oblong Capsules, each containing one Seed.

Plate 29. *a b c d e.*

1. NARROW-LEAVED SPURWEED.

Plate 29. Fig. 1.

Character of the Species.

Crucianella angustifolia.

The Stalk is erect; the Leaves are linear, sharp-pointed, and stand six at a Joint.

Fig. 1. *a b c.*

THIS is an Annual, native of the South of France; a Plant of fifteen inches high, flowering in August. The Stalk is firm, erect, and of a pale green, but with a tinge of brown: the Leaves are of a faint green, with a blueish or greyish cast: the Flowers are white.

2. BROAD-LEAVED SPURWEED.

Plate 29. Fig. 2.

Character of the Species.

Crucianella latifolia.

The Stalk leans; the Leaves are lanced, and stand four at a Joint. Fig. 2. *a b c.*

THIS is an Annual, native of the dry and barren grounds of France, and Spain, as also of the Levant Islands; a straggling Plant, of no great beauty, growing to a foot and half in length, and flowering from June to August. The Stalk is hard, yet weak; it is of a brownish colour, and branched: the Leaves are of a bright and pleasant green; and grow with an air of freedom on the Plant, that gives a pleasing appearance; inasmuch, that many who are not accustomed to value Herbs for their rarity, but their beauty, have called this with me, at Bayswater, a pretty weed: the Flowers are white, and inconsiderable.



Generic Character.



Vol 7. Narrow leaved Spurweed.



Broad leaved
Spur weed.



Stragling Spur weed

Short leaved Spur weed

Obtuse leaved Spur weed.

3. SHORT-LEAVED SPURWEED.

Plate 30. Fig. 1.

Character of the Species.

Crucianella maritima.

The Stalk is woody, and leans; the Leaves stand four at a Joint, and are broad, lanced, and sharp-pointed.

Fig. 1. *a b*.

THIS is a Perennial, native of the dry and barren grounds about the Sea in the Levant Islands, and also of some parts of the South of France, remote enough from salt water; a Plant of a foot, or somewhat more, in height, flowering in July. The Stalk is hard, woody, and brown: the Leaves are of a very fresh and pleasing green: the Flowers are white and inconsiderable. The Plant, however, where it spreads itself at liberty, makes a very pretty appearance.

4. OBTUSE-LEAVED SPURWEED.

Plate 30. Fig. 2.

Character of the Species.

Crucianella Monspelienfis.

The Stalk leans upon the ground; the Leaves are placed in fours, and are egg-shaped, and obtuse; only those on the Branches are linear, and placed by fives.

Fig. 2. *a b c*.

THIS is a Biennial, native of the South of France; a Plant of eight or ten inches in length, but in great part lying on the ground; and flowering in July. The Stalk is tender, and of a brownish green: the Leaves are of a blueish green: the Flowers are small, and white; but though inconsiderable in themselves, they make a pretty appearance as they stand ranged in long spikes, like ears of corn.

5. STRAGGLING SPURWEED.

Plate 30. Fig. 3.

Character of the Species.

Crucianella patula.

The Stalks are weak, and branchy; the Leaves are lanced, sharp-pointed, and placed six at a Joint; the Flowers stand at distances from each other.

Fig. 3. *a b c*.

THIS is a Biennial, native of the sandy grounds of Spain, and Italy; a Plant of a foot and half in length, but lying mostly on the ground, and flowering in June. The Stalk is of a pale yellowish brown; the Leaves are of a faint green, with a yellowish tinge: the Flowers are white. None of the Plants of this Genus are very specious in their appearance, but this least of all.

G E N U S

G E N U S IV.

T O O T H S E E D.

S P E R M A C O C E.

Plate 31.

Character of the Genus.

The Cup is a small rim, with four dents placed upon the Germ; the Flower has a long tube, and its rim is cut into four Segments, which are obtuse, and turn back; the Fruit is composed of two oblong Capsules, which grow together, and are obtuse, protuberant on one side, and flat on the other, and each crowned with two firm teeth, which were originally the Segments of the Cup.

Plate 31. *a b c d e*.

1. S M O O T H T O O T H S E E D.

Plate 31. Fig. 1.

Character of the Species.

Spermacoce tenuior.

The whole Plant is smooth; the Leaves are broad, and lanced; and the Filaments are short, and inclosed within the tube of the Flower. Fig. 1. *a b*.

THIS is an Annual, native of the dry banks, and other barren grounds in Carolina, and Georgia; a Plant of a foot and a half high, flowering in August. The Stalk is hard, and of a yellowish brown: the Leaves are of a fresh and pleasing green: the Flowers are white, and small. I am told that in its native soil they are yet much smaller than with us, who raise it with care and attention.

2. R U G G E D T O O T H S E E D.

Plate 31. Fig. 2.

Character of the Species.

Spermacoce hispida.

The Leaves are egg-shaped, rugged, and obtuse; the Filaments are long, and appear above the body of the Flower. Fig. 2. *a b c d*.

THIS is a Biennial, native of Ceylon; a Plant of a foot and half high, flowering in August. The Stalk is firm, upright, and brown: the Leaves are of a dusky green, but they have somewhat of a hoary aspect, from the quantity of pale hairs which cover them: the Flowers are white; they are small, but somewhat larger than those of the preceding.

3. T U F T E D

TOOTH SEED.





Hard Stalked
Toothseed.

Tufted Toothseed.

Slender
Toothseed.

3. TUFTED TOOTHSEED.

Plate 32. Fig. 1.

Character of the Species.

The whole Plant is smooth : the Flowers stand in great tufted clusters ;
and their filaments are longer than the tube of the Flower. Fig. 1. *a b c*.

Spermacoce verticillata.

THIS is a Biennial, native of Africa, and some parts of the West Indies : a Plant of two feet high ; flowering in August. The Stalk is firm, square, upright, and brownish : the Leaves are of a bright and glossy green : the Flowers are snow white ; they are small in themselves, but they are placed in so thick tufts, that they give the Plant a singular and very pretty appearance.

4. HARD-STALKED TOOTHSEED.

Plate 32. Fig. 2.

Character of the Species.

The Stalk is hard and woody : the Leaves are oblong, and have high ribs.

Fig. 2. *a b c*.*Spermacoce suffruticosa.*

THIS is a Perennial, native of the southern parts of Europe : a Plant of two feet and a half in height, and of a bushy aspect ; flowering in August. The Stalk is rugged and brown : the Leaves are of a dull, and somewhat blueish green : the Flowers are small and white.

5. SLENDER TOOTHSEED.

Plate 32. Fig. 3.

Character of the Species.

The Stalk is slender and upright : the Leaves are linear : and the Flowers have long and apparent filaments.

Fig. 3. *a b c*.*Spermacoce frigosa.*

THIS is a Biennial ; a poor and starved looking Plant, which grows upon the barren hills of Italy and Spain ; and flowers in June. The Stalk is firm, hard, and of a dusky green : the Leaves are of a dull unpleasing green, with somewhat of a blueish tinge : the Flowers are white.

G E N U S VI.
W H I T L O W - W E E D .
H O U S T O N I A .

Plate 33.

Character of the Genus.

The Cup is oblong, slender, and cut into four narrow, upright Segments at the rim ; the Flower has a long cylindric tube, and its verge is cut into four oblong, obtuse Segments ; the Fruit is a roundish Capsule, composed of two parts, growing together, in each of which is one roundish Seed.

Plate 33. *a b c d e*.

1. BLUE WHITLOW-WEED.

Plate 33. Fig. 1.

Character of the Species.

The Leaves are oval, and obtuse ; the Flowers stand singly at the tops of the divisions of the Stalk.

Houstonia cærulea.

Fig. 1. *a b c*.

THIS is an Annual, native of Virginia ; a Plant of three or four inches high, flowering in June. The Leaves, which spread in little roses on the ground, are of a pale green : the Stalk is also pale ; and the Flowers are blue. The resemblance of this Plant to the Common Whitlow-Grass, in its manner of growth, though the fructification is altogether different, got it its English name.

2. CRIMSON WHITLOW-WEED.

Plate 33. Fig. 2.

Character of the Species.

The Leaves are lanced, and sharp-pointed ; and the Flowers stand in clusters.

Houstonia purpurea.

Fig. 2. *a b c*.

THIS is an Annual, native also of Virginia ; a Plant of a finger's height, flowering in June. The Leaves are of a deep, but pleasing green : the Stalk is pale : the Flowers are of a delicate crimson ; and the Seeds are brown.

O N E - P E T A L ' D P L A N T S .

F A M I L Y III.

Having the Flower cut into five parts.

R A N K I.

With the Seeds naked in the Cup.

O R D E R I.

Having the throat of the Flower naked.

G E N U S I.

H A R D W O R T .

A S P E R U G O .

Plate 33. 2.

Character of the Genus.

The Cup is of one Leaf, cut into five deep dents, with two lesser between every pair ; the Flower has a short cylindric tube ; its verge is cut into five obtuse Segments ; the Seeds are four, oblong, and lodged in the Cup, which grows larger and deeper dented at the top.

Plate 33. 2. *a b c d e*.

D E C U M B E N T H A R D W O R T .

Plate 33. Fig. 1.

Character of the Species.

The Leaves are lanced ; and the Stalk leans.

Asperugo procumbens.

Fig. 1. *a b*.

THIS is an Annual, native of our banks and ploughed lands in some parts of England, but not common ; a Plant of a foot long, flowering in May. The Stalks are hard, rugged, and brown : the Leaves are also hard, and rugged, and their colour is a faint green : the Flowers are blue.



WHITLOW WEED



Generic
Character.



Painted
Vipers Bugloss.

Egg Leaved
Vipers Bugloss.

Drooping Vipers Bugloss.

GENUS II.

VIPERS BUGLOSS.

ECHIUM.

Plate 34.

Character of the Genus.

The Cup is of one Leaf, cut deeply into five narrow, upright, sharp-pointed Segments ; the Flower has a very short, simple tube ; its verge expands, and is cut into five segments, of which the lowest is the least ; this gives it an oblique aspect, but it is still a very regular Flower : the Seeds are four, and they lie loose in the Cup, which grows larger, and harder for their preservation.

Plate 34. Fig. *o a b c d e*.

1. PAINTED VIPERS BUGLOSS.

Plate 34. Fig. 1.

Character of the Species.

Echium vulgare.

The Stalk is simple, and erect ; the Leaves are lanced, and rugged ; the Flowers are ranged in clustery spikes from the sides of the Stem. Fig. 1. *a b c d*.

THIS is a Biennial, native of our waste grounds by road sides, and in other dry places ; a Plant of two feet high, flowering in June. The Stalk is of a pale green, spotted elegantly with crimson : the Leaves are of a strong, but not deep green : the Flowers are of a celestial blue : and while in the Bud, are tipped with crimson : upon the whole, it is a Plant of great beauty, worthy a place in the best gardens, though it be of our own growth.

2. DROOPING VIPERS BUGLOSS.

Plate 34. Fig. 2.

Character of the Species.

Echium Creticum.

The Stalk leans ; the Leaves are oval lanced ; the Cups stand distinct.

Fig. 2. *a b c d*.

THIS is an Annual, native of Crete ; a Plant of little more than a foot in height ; flowering in June. The Stalk is harsh to the touch, and of a pale green : the Leaves are of a faint green, with a yellowish tinge : the Flowers are of a very delicate crimson.

3. EGG-LEAVED VIPERS BUGLOSS.

Plate 34. Fig. 3.

Character of the Species.

Echium Orientale.

The Leaves are egg-shaped ; the Stalk is upright, and branched ; the Flowers stand at distances.

Fig. 3. *a b c*.

THIS is a Biennial, native of the Levant Islands ; a Plant of great elegance, flowering in July. The Stalk is firm, rugged, and erect : the Leaves are of a strong, but not bright green : the Flowers are very large, and of a most beautiful blue.

4. WOODY

4. WOODY VIPERS BUGLOSS.

Plate 35. Fig. 1.

Character of the Species.

The Stalk is woody ; and the Leaves are oblong, obtuse, and hairy.

*Echium fruticosum.*Fig. 1. *abc.*

THIS is a Perennial, native of the Cape of Good Hope, and of some other parts of Africa ; a tough and woody Plant, of a yard in height, flowering in June. The Stem is covered with a brown rugged bark : the young Shoots are of a pale green : the Leaves are of a faint, but pleasing green : and the Flowers are of a bright, and very delicate blue.

5. LOW-FLOWERED VIPERS BUGLOSS.

Plate 35. Fig. 2.

Character of the Species.

The Leaves are lanced ; the Flowers stand so low in their Cups, as but little to exceed them in height, and have a range of delicate hairs round their edge.

WALL BUGLOSS.
*Echium italicum.*Fig. 2. *abc.*

THIS is an Annual, native of the South of Europe, in great plenty, and found in our isles of Guernsey, and Jersey, in some places on walls, and in the dry sands ; flowering in June. The Stalk is upright, pale, and a foot and half high : the Leaves are of a faint greyish, or blueish green : the Flowers are white ; and though not so large as in the common *Echium*, are very pretty.

6. SILKY VIPERS BUGLOSS.

Plate 35. Fig. 3.

Character of the Species.

The Stalk is glossy, and smooth ; the Leaves are lanced, and are smooth and silky on the surface, only they have a ruggedness on the edge, and along the Rib.

*Echium lævigatum.*Fig. 3. *abc.*

THIS is a Biennial, native of America ; a Plant of two foot high, flowering in August. The Stalk is pale : the Leaves are of a whitish green : and the Flowers, which are very large, are of a beautiful blue.

7. RUGGED-EDGED VIPERS BUGLOSS.

Plate 35. Fig. 4.

Character of the Species.

The Stalk is simple ; the Leaves are covered with a soft silky down ; the Filaments are shorter than the body of the Flower.

*Echium lusitanicum.*Fig. 4. *abc.*

THIS is a Perennial, native of the South of Europe ; a Plant of a foot and half high, flowering in June. The Stalk is of a pale faint green : the Leaves are also of a pale green : the Flowers are of a beautiful blue.

G E N U S



Woody Vipers Bugloss



Rugged Edgd
Vipers Bugloss



Low flowered Vipers
Bugloss



Silky Vipers Bugloss

1797

Genus: *Chamaenerion*



Chamaenerion



Broad leaved Lungwort

Narrow leaved Lungwort

GENUS II.
LUNGWORT.
PULMONARIA.

Plate 36.

Character of the Genus.

The Cup is oblong, cylindrick, raised in five ridges, and cut into five dents at the top; the Flower has a short, thick, cylindric tube; the verge is cut into five obtuse Segments, which turn upwards; the Fruit consists of four naked Seeds, in the bottom of the unaltered Cup. Plate 36. *a b c d*.

1. BROAD-LEAVED LUNGWORT.

Plate 36. Fig. 1.

BROAD LUNGWORT.
Pulmonaria officinalis.

Character of the Species.

The radical Leaves are broad, oval, and harsh to the touch. Fig. 1. *a b*.

THIS is a Perennial, native of the woods and thickets of most parts of Europe, our own not excepted, though with us it is far from common; it is a very pretty Plant, of about ten inches high, flowering in the early part of spring, and lasting in its beauty a great deal of summer. The Stalk is pale: the Leaves are of a dusky green, spotted with white: the Flowers, when open, are of a very fine blue; and while in the bud they are of a bright red: there are always a number in both these states upon the Plant at the same time, during the flowering season, and the variety they make is very pretty.

2. NARROW-LEAVED LUNGWORT.

Plate 36. Fig. 2.

Pulmonaria angustifolia.

Character of the Species.

The radical Leaves are narrow, lanced, and smooth. Fig. 2. *a b*.

THIS is a Perennial, native as the former of the woods of most parts of Europe, and of some of ours in the West of England; a Plant of a foot and half high, flowering in April. The Stalk is pale: the Leaves are of a greyish green, but generally brown at the edges, and spotted with white; though both in them, and the preceding, the spots are sometimes wanting: the Flowers are blue.

A strong decoction of this, or the former Plant, for they agree in virtue, is held in great estimation in some places against consumptive disorders and spitting of blood; I believe with reason. The common people hence call it the Holy Herb, and Sage of Jerusalem.

G E N U S IV.

L I G H T W O R T.

P N E U M A R I A.

Plate 37.

Character of the Genus.

The Cup is short, bell-fashioned, smooth, and cut almost to the base into five Segments, which are oval, sharp-pointed, and spread outward; the Flower has a very long, cylindric, slender tube, and is lightly cut into five dents at the verge; the Seeds are four after every Flower, and lie in the base of the Cup.

Plate 37. *a b c d.*

1. O B T U S E L I G H T W O R T.

Plate 37. Fig. 1.

Character of the Species.

The Leaves are broad, lanced, and obtuse.

*Pneumaria Virginica.*Fig. 1. *a b.*

THIS is a Perennial, native of the wood sides, and other damp and sheltered places in Virginia; a Plant of two feet and a half high, flowering in May, or sooner. The Leaves are of a faint green, according to the soil, blueish, or yellowish, but the latter is their natural colour: the Stalk also is pale: the Flowers are blue when open, red in the bud; and they stand in a tuft at the top of the Stalk, making a very elegant appearance.

2. E G G - L E A V E D L I G H T W O R T.

Plate 37. Fig. 2.

Character of the Species.

The radical Leaves are egg-shaped, but a little hearted at the base.

*Pneumaria Sibirica.*Fig. 2. *a b.*

THIS is a Biennial, native of Siberia; a Plant of a foot and half in height, flowering in May. The Stalk is of a pale green; the Leaves also are of a pale, but pleasing green: the Flowers are blue, when open, and of a delicate pale crimson in the bud.

3. B L U E - G R E E N L I G H T W O R T.

Plate 37. Fig. 3.

Character of the Species.

The Leaves are broad, lanced, sharp-pointed, and hollowed at the base.

*Pneumaria maritima.*Fig. 3. *a b c.*

THIS is a Biennial, native of the Sea coasts of France, and England, though but scarce with us; a Plant of a foot and a half high, flowering in June. The Stalk is pale: the Leaves are of a delicate sea green: the Flowers are pale blue; and while in the bud, pale crimson.

LINNÆUS joins this Genus with the former; but the difference of both Flower and Cup claim more distinction.



Generic
Character



Vol 7
Egg-leave Lightwort

Obtuse
Lightwort

Bluegreen
Lightwort



Generic
Character.



Amplexicaule
Honey wort

Harsho
Honey wort

GENUS V.

HONEYWORT.

CERINTHE.

Plate 38.

Character of the Genus.

The Cup is deeply cut into five oblong, equal, sharp-pointed segments; the Flower has a very short, thick tube, from whence it swells into a wide belly, and contracts again at the neck; the verge is divided into five short Segments: the Seeds are four after every Flower; and they have a double hard shell placed over them, so that till broken, they usually seem only two.

Plate 38. *o a b c d e*

1. AMPLEXICAUL HONEYWORT.

Plate 38. Fig. 1.

Character of the Species.

Cerithe major.

The Leaves embrace the Stalk; the verge of the Flower is open; and its Segments are obtuse.

Fig. 1. *a b c.*

THIS is an Annual, native of Portugal; a Plant of a foot and half high, flowering in April. The Stalk is firm, erect, robust, and of a blueish green: the Leaves are of the same blue green, spotted with white: the Flowers are large, and yellow, but their base is crimson; and sometimes that colour extends itself over the body of the Flower.

BEEs are fond of this Plant: the Greeks thought they collected wax from it, and named it thence *Cerithe*: we suppose it is for honey they resort to the Flower, as our name expresses. By what I have observed, that Insect collects both in abundance from this Plant: tubular Flowers in general favour these productions; and the Bees enter even Deadly Nightshade, for one and for the other.

2. HARSH HONEYWORT.

Plate 38. Fig. 2.

Character of the Species.

Cerithe maculata.

The Leaves half embrace the Stalk, and they are nipped at the end; the Flower is half shut; and its Segments are sharp.

Fig. 2. *a b c.*

THIS is a Perennial, native of the South of Europe; a Plant of two feet and a half high, flowering in May. The Stalk is pale, and branchy: the Leaves are of a pale yellowish green, spotted with white: the Flowers are of a deep and dusky yellow.

3. CLOSE

3. CLOSE HONEYWORT.

Plate 39. Fig. 1.

Character of the Species.

The Leaves embrace the Stalk; they are lanced, and sharp-pointed; the Flowers close at their mouth; and their Segments are sharp.

Cerinthe minor.

Fig. 1. a b c d.

THIS is a Biennial, native of the wood sides and rocky hills of Germany; a Plant of a foot and half high, flowering in May. The Stalk is pale, and weak: the Leaves are smooth, and of a glossy green: the Flowers are yellow, and have little beauty; for being always shut, they have an appearance of being faded.

4. RUGGED HONEYWORT.

Plate 39. Fig. 2.

Character of the Species.

The Leaves are narrow, and nearly linear, and are harsh to the touch; the Cup is harsh; and the Seeds have four coats instead of two, and appear distinct.

Cerinthe echioides.

Fig. 2. a b c.

THIS is a Perennial, native of the rocky hills of France, Italy, and Germany; a rough Plant, of a foot and half high, flowering in May. The Stalk is of a faint green: the Leaves are of a yellowish green, covered with short and firm, brown hairs: the Flowers are of a pale yellow.

Some of the Honeyworts might seem separated from the family of naked-seeded Plants, by the double coat of their Seeds resembling two Capsules; but this sets it right. In all, the covering is a coat of the absolute outer skin of the Seed, not a Seed-vessel of distinct origin: and in this particular Species every Seed of the four has it; and the very appearance of confusion vanishes.

5. PENDULOUS HONEYWORT.

Plate 39. Fig. 3.

Character of the Species.

The Leaves are lanced, and rough; the Cup hangs down.

Cerinthe Orientalis.

Fig. 3. a b.

THIS is a Biennial, native of the East; a Plant of a foot and half high, flowering in May. The Stalk is yellowish: the Leaves are of a yellowish green: the Flowers are straw colour. In the other Species the Cup enlarges after the Flower falls, and raises itself upright; in this it becomes enlarged, but continues to hang down.

G E N U S

HONEY WORT
2

Pl 39



Rugged
Honeywort.

Pendulous
Honeywort.

Close Honeywort

Vol 7



Generic
Character.



Pearly Gromwell



Egg leaved Gromwell

Rough seeded
Gromwell



Marsh leaved Gromwell



Long flowered Gromwell

Weak Gromwell



G E N U S VI.
G R O M W E L L.
L I T H O S P E R M U M.

Plate 40.

Character of the Genus.

The Cup is oblong, and cut into five erect, hollowed, and sharp-pointed Segments; the Flower has a cylindric tube; and its verge is cut into four obtuse Segments, which stand upright; the Seeds are four, hard, and oval.

1. P E A R L Y G R O M W E L L.

Plate 40. *abcde*.

Character of the Species.

The Flowers are scarce longer than the Cup; the Leaves are lanced; the Seeds are glossy.

COMMON GROMWELL.

Lithospermum officinale.

Fig. 1. *abc*.

THIS is a Perennial, native of our dry waste grounds; a Plant of two feet and a half high, flowering in June. The Stalk is green, tinged with brown: the Leaves are of a strong green: the Flowers are white. The Seeds of this Plant are said to have great virtues against the stone gravel.

2. R O U G H - S E E D E D G R O M W E L L.

Plate 40. Fig. 2.

BASTARD ALKANEL.

Lithospermum arvense.

Fig. 2. *abc*.

Character of the Species.

The Flowers are low; the Leaves are hairy, and obtuse; the Seeds are rough.

THIS is an Annual, native of our tilled grounds; a Plant of two feet high, flowering in May. The Stalk is pale: the Leaves are of a faint and greyish green: the Flowers are white, sometimes lightly tinged with crimson: the Seeds are brown.

3. E G G - L E A V E D G R O M W E L L.

Plate 40. Fig. 3.

Lithospermum Virginianum.

The Leaves are oval, with thick ribs; the Flowers are low, and their Segments sharp.

Fig. 3. *abc*.

THIS is a Biennial, native of Virginia; a Plant of a foot and half high, flowering in June. The Stalk and Leaves are of a pale green: the Flowers are white.

4. L O N G - F L O W E R E D G R O M W E L L.

Plate 40. Fig. 4.

Lithospermum purpureo-cæruleum.

Character of the Species.

The Flowers are much longer than the Cup; the Seeds are smooth.

Fig. 4. *abc*.

THIS is a Perennial, native of our wood sides; a low Plant, lying on the ground, and flowering in August. The Stalk is pale: the Leaves are greyish; and the Flowers are crimson.

5. W E A K G R O M W E L L.

Plate 40. Fig. 5.

Lithospermum tinctorium.

Character of the Species.

The Stalk has no branches; the Leaves are linear, and hairy.

Fig. 5. *abc*.

THIS is a Perennial, native of the Levant, and of some parts of France, and Spain; a Plant of a foot and half high, flowering in June. The Stalk is pale: the Leaves are of a fine green: the Flowers are of a pale crimson.

6. H A R S H - L E A V E D G R O M W E L L.

Plate 40. Fig. 6.

Lithospermum fruticosum.

Character of the Species.

The Stalk is woody; and the Leaves are harsh.

Fig. 6. *abc*.

THIS is a Perennial, woody Plant, native of Italy, and Spain; growing to a yard high, and flowering in June. The Stem is brown: the young Shoots are pale green: the Leaves are of a brownish green: and the Flowers pale crimson.

ORDER II.

Having the throat of the Flower dentated.

GENUS I.

COMFRY.

SYMPHYTUM.

Plate 41.

Character of the Genus.

The Cup is oblong, with five ridges, and is cut into five oval, sharp Segments; the Flower has a very short tube, a swelling body, and a rim cut into five obtuse Segments, which turn down; the Seeds are four; they are rounded at the back, sharp at the point, and lodged in the enlarged Cup.

Plate 41. *a b c d.*

1. ALATED COMFRY.

Plate 41. Fig. 1.

COMMON COMFRY.

Character of the Species.

The Leaves are lanced, waved, and run down and welt the Stalk. *Symphytum officinale.* Fig. 1. *a b c.*

THIS is a Perennial, native of our ditch sides; a Plant of two feet and a half in height, flowering in June. The Stalk is pale, and whitish: the Leaves are of a coarse, but pale green: the Flowers are of a dead white, sometimes yellowish, and sometimes tinged with purple. This Plant has great virtues. I have given the Root successfully in spittings of blood and dysenteric disorders; and it is said, that applied outwardly it will cure cancers. One doubts such accounts, but it would be worth while to try this singular Plant.

2. EXPANDED COMFRY.

Plate 41. Fig. 2.

Character of the Species.

The Stalk spreads into wide branches; and the upper Leaves are in pairs. *Symphytum tuberosum.* Fig. 2. *a b c.*

THIS is a Perennial, native of damp thickets in Germany, and Switzerland; a Plant of two feet high, flowering in June. The Stalk is of a yellowish brown: the Leaves are of a pleasing green, but with a tinge of yellow: the Flowers are of an elegant straw colour.

3. BLUE COMFRY.

Plate 41. Fig. 3.

Character of the Species.

The Leaves are oval, and have short Footstalks. *Symphytum Orientale.* Fig. 3. *a b.*

THIS is a Perennial, native of the river sides about Constantinople; a handsome Plant, of two feet high, flowering in April. The Stalk is pale: the Leaves are of a dusky green: the Flowers are naturally of a fine blue, but they are often white.



Alated Comfry

Expandoe Comfry

Blue Comfry



Generic Character



Arrowed Borage



Curly Borage



Great Borage



Warty Borage

G E N U S II.

B O R A G E.

B O R R A G O.

Plate 42.

Character of the Genus.

The Cup is cut, almost to the base, into five lanced and pointed Segments; the Flower has a very short tube; its verge is cut into five broad, sharp-pointed Segments; the Seeds are four; they are rugged, round at the base, cut at the top, and lodged in the Cup.

Plate 42. *o a b c d e.*

1. G R E A T B O R A G E.

Plate 42. Fig. 1.

COMMON BORAGE.

Character of the Species.

Borrigo officinalis.

The Cups spread open: the Leaves are oval, and all placed alternate.

Fig. 1. *a b c.*

THIS is an Annual, native of Syria, but familiar every where now with us, in gardens, and on dunghills; a Plant of two feet high, flowering in June. The Stalk is pale: the Leaves are of a strong, but not pleasing green: the Flowers are blue, and very elegant: the Seeds are brown.

2. A R R O W E D B O R A G E.

Plate 42. Fig. 2.

Character of the Species.

Borrigo Indica.

The Leaves are lanced; the upper ones in pairs; and those under the Cups arrowed.

Fig. 2. *a b.*

THIS is an Annual, native of the East; a Plant of a foot and half high, flowering in June. The Stalk is pale: the Leaves are of a pleasing green: the Flowers are crimson, with gold yellow, and large antheræ very conspicuous in the center.

3. C U R L Y B O R A G E.

Plate 42. Fig. 3.

Character of the Species.

Borrigo Constantinopolitana.

The radical Leaves are hearted; those on the Stalk lanced, and curled; the Cups are very short; and the Segments of the Flower turn down.

Fig. 3. *a b c.*

THIS is a Perennial, native of Turkey, and of the Levant Islands; a beautiful Plant, flowering in April. The Leaves are of a deep and dusky green: the Stalk is pale, but brownish: the Flowers are of a most lively and beautiful violet crimson.

4. W A R T Y B O R A G E.

Plate 42. Fig. 4.

Character of the Species.

Borrigo Africana.

The Leaves are lanced, obtuse, and warted; those under the Cup are oval.

Fig. 4. *a b c.*

THIS is an Annual, native of the Cape of Good Hope; a Plant of a foot and half high, flowering in May. The Leaves are of a dusky green, warted with brown: the Stalk is pale green: the Flowers are crimson, with more or less tinge of the blue.

O R D E R

ORDER III.

With the throat of the Flower arched.

GENUS I.

WALL BUGLOSS.

LYCOPSIS.

Plate 43.

Character of the Genus.

The Cup has a round base, and is cut deep into five, oblong, sharp-pointed Segments ; the Flower has a long tube bent like a knee ; the verge is cut into five obtuse Segments ; the Seeds are four, oblong, and lodged in the Cup.

Plate 43. *a b c d e*.

1. PENDULOUS WALL BUGLOSS.

Plate 43. Fig. 1.

Character of the Species.

The Leaves are lanced, and waved ; the Seed-cups swell like bladders, and hang down.

Lycopsis vesicaria.

Fig. 1. *a b c*.

THIS is an Annual ; a small Plant, of a foot and half in height, native of the fields and vineyards of the South of France, and Spain ; flowering in June. The Stalk is pale, and rough ; it often leans upon the ground, but when well nourished, rises more upright : the Leaves are of a faint green : the Flowers are of a deep crimson, almost black.

2. SPOTTED WALL BUGLOSS.

Plate 43. Fig. 2.

Character of the Species.

The Leaves hang, and are rough, and spotted with hard spots ; the Flowers hang down ; and the Stalk always leans.

Lycopsis variegata.

Fig. 2. *a b c d*.

THIS is an Annual, native of the Greek Islands ; a weak Plant, of about a foot in height, flowering in May. The Stalk is harsh, and rough ; the Leaves are of a dull and dead green : the Flowers are blue, beautifully variegated with crimson ; sometimes with white, or yellow.

3. WARTED WALL BUGLOSS.

Plate 43. Fig. 3.

Character of the Species.

The Stalk leans, and bends ; the Leaves are covered with rising warts ; the Flowers spread out wide.

Lycopsis Aegyptiaca.

Fig. 3. *a b c*.

THIS is an Annual, native of the higher Aegypt ; a Plant of a foot and half high, flowering in June. The Stalk is dusky : the Leaves are of a dull and unpleasing green, with pale callous risings all over them : the Flowers are numerous, and of a very beautiful blue.

4. HARSH





Marsh
Wall Bugloss



Black
Wall Bugloss



Oval leaved
Wall Bugloss



Woolly Wall Bugloss

4. HARSH WALL BUGLOSS.

Plate 44. Fig. 1.

Character of the Species.

Lycopsis arvensis.

The Leaves are harsh, waved, and lanced, with a broad base; the Flower-cups stand upright.

Fig. 1. *a b c.*

THIS is an Annual; native of our corn fields, and other cultivated ground; a weed of a poor aspect, flowering in June. The Stalk is pale, rough, branched, and ten inches high: the Leaves are of a faint green: the Flowers are small, and of a faint blue, but reddish in the bud.

2. BLACK WALL BUGLOSS.

Plate 44. Fig. 2.

Character of the Species.

Lycopsis pulla.

The Leaves are slightly lanced, and undivided; the Stalk is erect; the Cups after flowering, swell, and hang down.

Fig. 2. *a b c.*

THIS is an Annual; a weed in the vineyards and corn fields of Spain, and Italy, growing to a foot and half in height, and flowering in August. The Stalk is brown, and sun-burnt: the Leaves are of a dull, but not deep green: the Flowers are of a deep purple, sometimes almost black; and their Seed-cups are tinged with brown.

3. OVAL WALL BUGLOSS.

Plate 44. Fig. 3.

Character of the Species.

Lycopsis Orientalis.

The Leaves are oval, undivided, but waved, and rugged; the Seed-cups are erect.

Fig. 3. *a b c.*

THIS is an Annual, native of the Levant Islands; a Plant of a foot and half high, flowering in June. The Stalk is pale: the Leaves are of a dead green: the Flowers are small, but of a very bright and lively blue: the Seed-cups continue green.

4. WOOLLY WALL BUGLOSS.

Plate 44. Fig. 4.

Character of the Species.

Lycopsis Virginiaca.

The Leaves are nearly linear, and stand in clusters, and are woolly; the Stalk is erect.

Fig. 4. *a b c.*

THIS is an Annual, native of Virginia; an upright Plant, of a foot and half high, flowering in June. The Stalk is pale: the Leaves are of a whitish green: the Flowers are of a very beautiful blue, which is the more conspicuous from the whiteness of the rest of the Plant.

GENUS II.

HOUNDSTONGUE.

CYNOGLOSSUM.

Plate 45.

Character of the Genus.

The Cup is oblong, hollow, and cut deep into five segments; the Flower is somewhat longer than the Cup; its Tube is short, and cylindric; its verge cut into five obtuse segments; the Seeds are four; each covered with a rough coat, affixed to the style, and contained in the enlarged Cup.

Plate 45. a b c d.

1. WAVY HOUNDSTONGUE.

Plate 45. Fig. 1.

Character of the Species.

Cynoglossum officinale.

The Leaves are lanced, waved, and downy, and have no Footstalks; the Filaments are shorter than the Flower.

Fig. 1. a b c d.

THIS is a Perennial, native of our waste grounds; a Plant of two feet high, flowering in June. The Stalk is brownish: the Leaves are of a pale, and somewhat blueish green: the Flowers are very numerous, and of a deep crimson.

THIS Plant is celebrated, and with cause, for its virtues against Catarrhs and Diarrhoeas. I have also heard great things of it in the cure of the Evil, but have not had opportunities to try.

2. AMPLEXICAUL HOUNDSTONGUE.

Plate 45. Fig. 2.

Character of the Species.

Cynoglossum Virginianum.

The Leaves are oval, and embrace the Stalk at their base.

Fig. 2. a b.

THIS is an Annual, native of waste grounds in Virginia; a Plant of a foot and half high, flowering in August. The Stalk is greenish: the Leaves are of a faint green: the Flowers are of a pale crimson.

3. SILVER HOUNDSTONGUE.

Plate 45. Fig. 3.

Character of the Species.

Cynoglossum cheirifolium.

The Leaves are lanced, and obtuse; the Cup is much shorter than the Flower.

Fig. 3. a b.

THIS is an Annual, native of Spain, and of the Levant Islands; a very elegant Plant of a foot high, flowering in May. The Stalk is of a pale greyish green: the Leaves are of a blueish green; but have a silvery gloss very elegant: the Flowers also are remarkably pretty; they are white, streaked with crimson.



*Eyelashd
Shepherd's Needle*

Knotty Shepherd's Needle



*Great-flowerd Shep
herds Needle.*

Thrice Wingd Shepherd's Needle.



Mountain
Hounds tongue.



Vernal Hounds tongue.

4. MOUNTAIN HOUNDSTONGUE.

Plate 46. Fig. 1.

Character of the Species.

Cynoglossum Apeninum.

The Leaves are lanced, plain, and narrowed to the base; the Filaments are equal in length to the Flower.

Fig. 1. *a b c.*

THIS is an Annual, native of the woody parts of the Apenines, and other high mountains in Europe; a Plant of a yard high, flowering in June. The Stalk is brown, and high ribbed: the Leaves are of a fresh and fine green; and the lower ones have a kind of neck, like a Footstalk: the Flowers are crimson, but it is a dull, and not pleasing colour.

5. SNOWY HOUNDSTONGUE.

Plate 46. Fig. 2.

Character of the Species.

VENUS NAVELWORT.

Cynoglossum linifolium.

The Leaves are narrow, lanced, smooth, even at the edge, and sharp-pointed.

Fig. 2. *a b c.*

THIS is an Annual, native of the fields and vineyards in Portugal, and Spain; a very pretty little Plant, now familiar in our gardens, flowering in May. The Stalk is greyish: the Leaves are of a pale and elegant greyish, or blueish green: the Flowers are numerous; and perfectly white; a bed of it in a Flower seems covered with the purest snow: the Seeds are pale.

6. VERNAL HOUNDSTONGUE.

Plate 46. Fig. 3.

Character of the Species.

Cynoglossum omphalodes.

The radical Leaves are hearted; those on the Stalk are broad lanced.

Fig. 3. *a b c.*

THIS is a Perennial, native of the shady grounds in Portugal, and Italy; a Plant whose early beauty has given it, like the former, an universal place in our gardens. Its radical Leaves grow in great clusters, and are of a strong, but not pleasing green: the Stalks are pale, weak, and about eight or ten inches high: the Flowers are of a most celestial blue; and they have this additional value, that they appear before almost any thing else in spring.

G E N U S

GENUS III.

ALKANET.

ANCHUSA.

Plate 47.

Character of the Genus.

The Cup is oblong, cylindric, and cut deeply into five sharp segments; the Flower has a cylindric tube of the length of the Cup; the verge is cut into five obtuse segments, which stand raised, but yet spread; the Seeds are four; they are oblong, obtuse, and stand naked in the Cup.

Plate 47. a b c d.

1. EVER-FLOWERING ALKANET.

Plate 47. Fig. 1.

Character of the Species.

EVERGREEN BORAGE.
Anchusa semper virens.

The Leaves are broad lanced; the Flowers stand in clusters on little Footstalks, each of which has two peculiar Leaves on it.

Fig. 1. a b c.

THIS is a Perennial, native of the waste grounds of Spain; and has so long been common in our gardens, and so easily propagates itself from them, that some who have found it about Rochester, and elsewhere, out of gardens, have thought it native here: it grows to a foot and half high, and flowers all summer, and the greatest part of winter, whence it obtained the name *Semper virens et florens*. The Stalk is pale: the Leaves are of a faint green on the upper side, and paler underneath: the Flowers are of a beautiful blue.

2. SCALY SPIKED ALKANET.

Plate 47. Fig. 2.

Character of the Species.

COMMON BUGLOSS.
Anchusa officinalis.

The Leaves are broad lanced; the Flowers grow in scaly spikes, and all on one side.

Fig. 2. a b c d.

THIS is a Perennial, native of waste grounds in France, and Spain; a Plant of two feet high, flowering in June. The Stalk is green: the Leaves are of a strong green, and rough: the Flowers are of a delicate blue: the Flowers of this Plant have been idly supposed great cordials.

3. SPIRY ALKANET.

Plate 47. Fig. 3.

Character of the Species.

Anchusa angustifolia.

The Leaves are lanced; the Flowers stand in spiry spikes on both sides, and without Leaves, or Scales.

Fig. 3. a b c d.

THIS is a Perennial, native of the way sides in Germany, and France; a Plant of a foot and half high, flowering in June. The Stalk is pale, and harsh: the Leaves are of a pale green: the Flowers of a fine blue.

4. WAVY



Generic
Character.



Ever Flowering
Alkanet

Scaley Spikd Alkanet

Spiry
Alkanet.



Wavy Alkanet



Golden Alkanet



Woolly Alkanet



Smooth Stalked Alkanet

4. WAVY ALKANET.

Plate 48. Fig. 1.

Character of the Species.

Anchusa undulata.

The Leaves are linear, waved, and dented; the Seed-cups are large, and stand horizontally.

Fig. 1. *a b c.*

THIS is an Annual, native of the hedge sides in pasture grounds in Spain, and Portugal; a Plant of a foot high, flowering in June. The Stalk is of a pale blueish green: the Leaves also are of a faint green, with some tinge of blueish: the Flowers are of a bright blue; and the Seed-cups, as they ripen, grow brown.

5. GOLDEN ALKANET.

Plate 48. Fig. 2.

Character of the Species.

Anchusa Orientalis.

The Leaves are lanced; the Flowers stand alternately, and have broad, oval Films at their base.

Fig. 2. *a b c d.*

THIS is a Perennial, native of the Greek Islands; a Plant of two feet and a half in height, flowering in July. The Stalk is green: the Branches spread, and droop: the Leaves are of a coarse green; and the Flowers are gold yellow: the Films under them are also yellowish.

6. SMOOTH STALKED ALKANET.

Plate 48. Fig. 3.

Character of the Species.

Anchusa Virginiana.

The Leaves are oval, and waved; the Stalk is smooth; and the Flowers are not placed in spikes.

Fig. 3. *a b.*

THIS is a Perennial, native of Virginia; a Plant of a foot and half high, and not without its prettiness; flowering in August. The Stalk is green, and tender: the Leaves are of a strong and pleasing green: the Flowers are of a delicate yellow; they sometimes grow double, and resemble our double Cowslips, but with a better colour.

7. WOOLLY ALKANET.

Plate 48. Fig. 4.

Character of the Species.

Anchusa lanata.

The Leaves are woolly; the Cups are hairy; the Filaments are longer than the Flower.

Fig. 4. *a b c.*

THIS is a Biennial, native of Germany; a Plant of two feet high, flowering in June. The Stalk is whitish, and bent: the Leaves are of a whitish green: the Flowers are of a pale, but not unpleasing yellow.

GENUS IV.

TURNSOLE.

HELIOTROPIMUM.

Plate 49.

Character of the Genus.

The Cup is tubulate, and cut into five sharp segments at the verge; the Flower has a tube of the length of the Cup; its verge is cut into five obtuse, expanded segments, with as many lesser ones between; the Cup remains unaltered, and upright, and holds four oval sharp-pointed Seeds.

Plate 49. *a b c d e.*

1. EGG-LEAVED TURNSOLE.

Plate 49. Fig. 1.

Character of the Species.

Heliotropium Indicum.

The Leaves are egg-shaped, rugged, and sharp-pointed; the spikes of Flowers rise singly; and the Seeds adhere in pairs to each other.

Fig. 1. *a b c.*

THIS is an Annual, native of the East and West Indies; a very beautiful Plant, of two feet and a half in height, flowering in June. The Stalk is white, and rugged: the Leaves are rough, like those of Sage, and they are of a whitish green: the Flowers are of a most celestial blue; and they grow, with a perfect regularity, in spikes of five or six inches long.

2. WOOLLY TURNSOLE.

Plate 49. Fig. 2.

Character of the Species.

Heliotropium Europæum.

The Leaves are oval, obtuse, undivided, and woolly; the spikes rise in pairs.

Fig. 2. *a b.*

THIS is an Annual, native of the South of France, and Italy; among their vineyards, and other cultivated grounds; a Plant of about a foot high, flowering in May. The Stalk is of a pale green: the Leaves are also pale: the Flowers are white: their manner of growing renders them very pretty, as they are always in double spikes, curling back at their ends. The starved soil of the French vineyards stints this Plant in its growth, as also in the length of its spikes. I use no manure of any kind at Bayswater, that Plants may have their natural aspect: but here this Species is twice as tall as in France, and the spikes three times as long.

3. DECUM-



Eggland
Turnsole



Woolly
Turnsole



Obtuse Turnsole.



Linear Turnsole.



Decumbent Turnsole.

3. DECUMBENT TURNSOLE.

Plate 50. Fig. 1.

Character of the Species.

The Stalk leans ; the Leaves are oval, woolly, and curled ; the Flowers grow in single spikes.

Heliotropium supinum.

Fig. 1. *a b c d e.*

THIS is an Annual, native of Spain, and the other warmer parts of Europe ; a very pretty Plant, that spreads about the borders of fields, and the sea shores in some places, flowering in July. The Stalk is whitish, and rugged : the Leaves are downy, yet not soft, for they are wrinkled, and often plaited ; their colour is almost white : the Flowers are very numerous, and of a snow white.

4. OBTUSE TURNSOLE.

Plate 50. Fig. 2.

Character of the Species.

The Leaves are nearly linear, smooth, and without veins ; the spikes of Flowers rise double.

Heliotropium curassavicum.

Fig. 2. *a b c.*

THIS is an Annual, native of the sea coasts of South America, almost universally ; a Plant of eight or ten inches high, flowering in August. The Stalk is slender, weak, and brown : the Leaves are of a blueish green, and have a glossy aspect : the Flowers are white.

5. LINEAR TURNSOLE.

Plate 50. Fig. 3.

Character of the Species.

The Leaves are linear, and without veins ; the Flowers do not grow in spikes.

Heliotropium Orientale.

Fig. 3. *a b.*

THIS is an Annual, native of Bengal ; a little weak Plant, not exceeding seven or eight inches in length, and for the most part lying on the ground ; flowering in June. The Stalk is tinged with a dusky brown : the Leaves are of a good green : the Flowers are white.

6. KNOTTED TURNSOLE.

Plate 51. Fig. 1.

Heliotropium arborescens.

Character of the Species.

The Stem is woody ; the Leaves are oval, and crenated ; the Flowers grow in round knots, or little round balls.

Fig. 1. *abc.*

THIS is a Perennial, native of the Canary Islands ; a Plant of three feet high, but weak, though woody ; and flowers in August. The Stem is brown : the young Shoots are of a pale whitish green : the Leaves are of a faint, but not unpleasing green : the Flowers are white : they are extremely numerous, and their disposition in little balls gives them an agreeable appearance. This Species has a very delicate sweet smell.

7. CLOSE-SPIKED TURNSOLE.

Plate 51. Fig. 2.

Heliotropium fruticosum.

Character of the Species.

The Stem is woody ; the Leaves are slightly lanced, and hairy ; the Flowers stand in spikes, growing from the bosoms of the Leaves, without Footstalks.

Fig. 2. *abc.*

THIS is a Perennial, native of Jamaica, and Barbadoes ; a woody Plant, of a yard high, flowering in June. The Stem is brown : the young Shoots are of a faint green : the Leaves are of a pleasing green, though not strong : the Flowers are very numerous, and white.

8. OBTUSE DOWNY TURNSOLE.

Plate 51. Fig. 3.

Heliotropium Gnaphalodes.

Character of the Species.

The Leaves are linear, downy, and obtuse ; the Flowers grow in double spikes.

Fig. 3. *abc.*

THIS is a Perennial, native of South America in many places ; a woody Plant of two feet and a half high, flowering in August. The Stem is brown, and rugged : the young Shoots are whitish : the Leaves are delicately soft, and of a whitish colour : the Flowers also are white ; they stand very thick in the spikes, and the whole Plant has a delicate silvery aspect.

G E N U S

3



Close Spiked Turnsole

Obtuse Downy Turnsole



Knotted Turnsole





GENUS V.
MOUSE-EAR SCORPION GRASS.
MYOSOTIS.

Plate 52.

Character of the Genus.

The Cup is rounded at the base, and cut into five upright, pointed segments; the Flower has a short cylindric tube, and its verge is cut into five expanded, obtuse, nipped segments, which spread flat; the Seeds are four; and the Cup enlarges to contain them.

The Plant had its English name from the softness and shape of its Leaves, and the Scorpion turn of its spike.

Plate 52. *o a b c d e.*

1. AZURE MOUSE-EAR.

Plate 52. Fig. 1.

WATER SCORPION GRASS.

Character of the Species.

Myosotis Scorpioides.

The Seeds are smooth; the Leaves are oblong, obtuse, waved, and a little lanced.

Fig. 1. *a b c.*

THIS is a Perennial, native of our ditch sides; a very pretty Plant, of ten inches high, flowering in June. The Leaves are of a faint green: the Stalk is paler: the Flowers are extremely beautiful, of a fine blue, with a yellowish eye.

2. SHORT-LEAVED MOUSE-EAR.

Plate 52. Fig. 2.

Character of the Species.

Myosotis arvensis.

The Seeds are smooth; the Leaves are short, plain, hairy, and sharp-pointed.

Fig. 2. *a b c.*

THIS is an Annual; a pretty Plant, native of our dry banks, flowering in April. The Stalk is brownish, and not six inches high: the Leaves are of a yellowish green: the Flowers are small, of a dead blue, with a yellow eye; and sometimes all yellow.

3. ROUGH-SEEDED MOUSE-EAR.

Plate 52. Fig. 3.

Character of the Species.

Myosotis lappula.

The Seeds are covered with sharp, drooping hairs; the Leaves are lanced, and hairy.

Fig. 3. *a b c.*

THIS is an Annual, native of clay banks in Germany, and France; a Plant of ten inches high, flowering in June. The Stalk is rough: the Leaves are of a fine strong green: the Flowers are small, and blue; and the Seeds are brown.

4. LEAFY-HEADED MOUSE-EAR.

Plate 52. Fig. 4.

Character of the Species.

Myosotis apula.

The Leaves are lanced, and rough; the Seeds are naked; the spikes of Flowers are thick set with Leaves.

Fig. 4. *a b c d.*

THIS is an Annual, native of Italy, and Germany; a Plant of six inches high, flowering in June. The Stalk is rugged: the Leaves are of a strong green: the Flowers are yellow.

5. BRANCHY MOUSE-EAR.

Plate 52. Fig. 5.

Character of the Species.

Myosotis Virginiana.

The Seeds are rough; the Leaves are lanced; and the Stalks are branchy.

Fig. 5. *a b c d.*

THIS is an Annual, native of Virginia; a Plant of six inches high, flowering in August. The Leaves are of a faint green: the Flowers are of a fine blue: the Seeds are brown, and they are smooth on one side, and rough on the other.

HERBS.

With one-petal'd Flowers cut into five segments.

RANK II.

Having the Seeds contained in Capsules, or Seed-vessels.

ORDER I.

With the Seed-vessel containing one Seed.

GENUS I.

MARVEL OF PERU.

MIRABILIS.

Plate 53.

Character of the Genus.

The Cup is five-leaved, bellied, and erect; the Leaves are oval, and just connected at the base; the Flower has a long, slender tube, largest at top; its verge is slightly cut into five obtuse segments, which are raised with plaits between; the Fruit is an oval Capsule, with five flight ridges, containing one globular Seed.

Plate 53. *a b c d e.*

1. CLUSTERY MARVEL OF PERU.

Plate 53. Fig. 1.

Character of the Species.

Mirabilis Jalapa.

The Flowers stand in clusters at the tops of the branches; the Leaves are smooth.

Fig. 1. *a b c.*

THIS is a Perennial, native of Peru; a Plant of two feet and a half high, flowering in August. The Stalk is of a pale green: the Leaves are of a fine strong and shining green: the Flowers are crimson. The variety of colours in the Flowers of this Plant is wonderful; there are red, white, and yellow, and have all possible stripes and variations between them. We shall soon know, as to Jalap, what is the true Plant of which it is the Root: measures are taken to ascertain that in Cuba.

2. FORKED MARVEL OF PERU.

Plate 53. Fig. 2.

Character of the Species.

Mirabilis dichotoma.

The Flowers stand singly in the divisions and wings of the Stalk.

Fig. 2. *a b c.*

THIS is a Perennial, native of Mexico; a Plant of two feet high, flowering in July. The Stalk is pale: the Leaves are of a fresh green: the Flowers are crimson.

3. LONG-FLOWERED MARVEL OF PERU.

Plate 53. Fig. 3.

Character of the Species.

Mirabilis longiflora.

The Flowers have very long tubes, and stand clustering at the tops of the branches; the Leaves are woolly.

Fig. 3. *a b c.*

THIS is a Perennial, native of Mexico; a weak Plant, of a yard high, flowering in August. The Stalk is whitish, with red joints: the Leaves are of a pale green, and woolly; often reddish towards the base: the Flowers are of an extreme pale crimson, almost white, and of a most fragrant scent, like the Tuberoſe: the whole Plant is clammy to the touch.

MARVEL OF PERU.

Generic
Character



Clustery Marvell of Peru

Forked Marvell of Peru

Long Flowered Marvell of Peru

LEADWORT.



Generic
Character.



Rugged Leadwort

Smooth Leadwort

G E N U S II.

L E A D W O R T.

Plate 54.

Character of the Genus.

The Cup is tubular, oblong, swelling at the base, and rugged; it has five ridges and four dents at the rim; the Flower has a tube longer than the Cup, and small at the neck; the verge is cut into five oval rising segments; the Fruit is a Capsule, of an oval form, containing one Seed.

Plate 54. *a a b c d e*.

1. R U G G E D L E A D W O R T.

Plate 54. Fig. 1.

Character of the Species.

Plumbago Europæa.

The Leaves are rugged, and embrace the Stalk.

Fig. 1. *a b*.

THIS is a Perennial, native of the southern parts of Europe; a Plant of two feet and a half high, flowering in September. The Stalk is of a dead and pale green: the Leaves are of a blueish green, properly and exactly what we call a lead colour: the Flowers are sometimes blue, but oftener white: the Stalks and Leaves are also sometimes paler than in their natural state, and sometimes lose their roughness.

2. S M O O T H L E A D W O R T.

Plate 54. Fig. 2.

Character of the Species.

Plumbago Zeylanica.

The Leaves are smooth, and glossy, and are placed on Footstalks.

Fig. 2. *a b*.

THIS is a Perennial, native of the East and West Indies; a weak Plant, of a yard in height, flowering the greater part of summer. The Stalk is of a pale green: the Leaves are of a deep green, and have a glossy surface: the Flowers are white: the Cups are rugged, and prickly; and they, as also the upper parts of the Stalks, are glutinous, and stick to the hands on touching.

O R D E R

ORDER II.

Having a Seed-vessel containing several Seeds.

GENUS I.

WITHWIND.

IPOMÆA.

Plate 55.

Character of the Genus.

The Cup is small, oblong, and cut deep into five sharp segments; the Flower has a very long tube; its verge is cut deep into five lanced, sharp-pointed segments, which spread open, and lie flat; the Capsule is roundish, and holds several oval Seeds.

Plate 55. *abcde*.

1. FEATHERY WITHWIND.

Plate 55. Fig. 1.

INDIAN SWEET WILLIAM.

Character of the Species.

Ipomæa Quamoclit.

The Leaves are pinnatifid; their segments linear, and even; the Flowers stand singly.

Fig. 1. *abc*.

THIS is an Annual, native of the East and West Indies; a Plant that climbs to six or eight feet high, with a great deal of peculiarity as well as beauty, and flowers in July. The Stalk is weak, and brown: the Leaves are of a very delicate green: the Flowers are of a beautiful crimson. In Jamaica they call this Plant Sweet William.

2. WAVY WITHWIND.

Plate 55. Fig. 2.

Character of the Species.

Ipomæa Nyctylæa.

The Leaves are pinnatifid; their segments are like flaming swords, waved and sharp-pointed; the Flowers stand singly.

Fig. 2. *abc*.

THIS is a Biennial, native of Virginia; a very beautiful Plant, that climbs to five or six feet high, and flowers in August. The Stalk is of a dusky brown: the Leaves are of a pleasing, though not strong green: the Flowers are crimson.

3. FINGERED WITHWIND.

Plate 55. Fig. 3.

Character of the Species.

Ipomæa Caroliniana.

The Leaves are fingered; their Leaflets waved, and sharp-pointed; the Flowers stand single.

Fig. 3. *abc*.

THIS is a Biennial, native of Carolina; a pretty Plant, of four or five feet high, flowering in June. The Stalk is green: the Leaves are of a dull green: and the Flowers are crimson, but much inferior to those of the former.

4. ARROW-LEAVED WITHWIND.

Plate 55. Fig. 4.

Character of the Species.

Ipomæa coccinea.

The Leaves are heart-shaped, angulated at the base, and sharp-pointed; the Flowers grow in clusters.

Fig. 4. *abc*.

THIS is an Annual, native of Carolina, and the Bahama Islands; a Plant that climbs to seven or eight feet high, and flowers in June. The Stalk is brown: the Leaves are of a deep and delicate green: the Flowers are scarlet; sometimes redder, and sometimes yellower, but always beautiful.

5. SEVEN-

WITHWIND

Generic Character.



Feathery Withwind.

Wavy Withwind.



Fingerd Withwind.



Arrow leaved Withwind.



Seven fingered
Withwind

Hearted Withwind,



Velvet Withwind.

Violet Withwind.

5. SEVEN-FINGERED WITHWIND.

Plate 56. Fig. 1.

ARBOUR VINE.

Ipomæa tuberosa.

Character of the Species.

The Leaves are fingered with seven lanced, undivided, sharp-pointed segments.

Fig. 1. *abc.*

THIS is a Perennial, native of Mexico; a Plant of infinite beauty and sweetness, and thence brought into all the West India Islands; it grows to fifteen feet high, when duly supported, and flowers all summer. The Stalk is brown, but crimson often on the sunny side: the Leaves are of a full deep glossy green: the Flowers are of a delicate yellow, with a fine scent.

6. HEARTED WITHWIND.

Plate 56. Fig. 2.

Ipomæa campanulata.

Character of the Species.

The Leaves are heart-shaped; the Flowers grow several on a Stalk; the Cup swells.

Fig. 2. *abcd.*

THIS is a Perennial, native of the East and West Indies; a Plant that climbs to ten or twelve feet high, and flowers in June. The Stalk is green: the Leaves are of a very deep, but not pleasing green: the Flowers are yellow. There is a great deal of variation in the Flowers of this, and of the eighth kind, as they have more or less sun and moisture: they often, instead of expanding in plain segments, are cut less deep, and in consequence stand hollow, and look more bell-shaped; but it is unnatural, and merely accidental.

7. VELVET WITHWIND.

Plate 56. Fig. 3.

Ipomæa alba.

Character of the Species.

The Leaves are woolly, and heart-shaped, with a long point; the Flowers stand three on a Footstalk.

Fig. 3. *abc.*

THIS is a Perennial, native of the woods of Malabar; a very beautiful and singular Plant, that climbs the trees to twenty feet in height, and is covered with millions of Flowers almost throughout the year. The Stalk is whitish, tinged with brown: the Leaves are of a delicate greenish white: the Flowers are also white, sometimes more, sometimes less divided.

8. VIOLET WITHWIND.

Plate 56. Fig. 4.

Ipomæa violacea.

Character of the Species.

The Leaves are heart-shaped, and obtuse; the Flowers grow in clusters.

Fig. 4. *abc.*

THIS is a Perennial, native of South America; a Plant that climbs to twenty feet in height, and flowers in June. The Stalk is of a shining green: the Leaves are also of a fine green: the Flowers are of a violet purple, extremely beautiful.

9. ROSY WITHWIND.

Plate 57. Fig. 1.

Character of the Species.

Ipomæa folanifolia.

The Leaves are heart-shaped, with round ears, but undivided ; the Flowers stand singly.

Fig. 1. *a b c.*

THIS is a Perennial, native of Jamaica, and of Cuba ; a very elegant Plant, which by climbing rises to twelve feet in height, and flowers in July and August. The Stalk is brown in the lower part, and is there covered with a rugged bark : the young Shoots are green : the Leaves are of a fine fresh green, bright, and glossy : the Flowers are of the colour of the finest roses, but a little deeper ; and though they are not large, nor placed in clusters, yet make a very beautiful appearance, by the contrast with the strong green of the Leaves.

10. FURROWED WITHWIND.

Plate 57. Fig. 2.

Character of the Species.

Ipomæa lacunosa.

The Leaves are heart-shaped, undivided, and pitted with deep holes ; the Flowers grow two upon each Footstalk.

Fig. 2. *a b c.*

THIS is a Perennial, native of Carolina ; a Plant that climbs to eight or ten feet high, and flowers in great profusion all the summer. The Stalks are brown, weak, and usually bent : the Leaves are of a bright and elegant green ; very singular by those pits and hollows which are all over them : the Flowers are of a very fine pale crimson.

11. LOBATED WITHWIND.

Plate 57. Fig. 3.

Character of the Species.

Ipomæa triloba.

The Leaves are hearted at the base, and divided into three lobes ; the two upper of which are deep dented again ; the Flowers stand by threes.

Fig. 3. *a b c.*

THIS is a Perennial, native of the wood sides in most parts of the West Indies ; a Plant of eight feet high, flowering in August. The Stalk is brown, and hard : the Leaves are of a deep, but somewhat blueish green, a dead unpleasing colour : the Flowers are of a light crimson.



Rosy Withwind

Furrowed Withwind

Lobated Withwind



Umbrellad Withwind.



Expanded Withwind.



Vol 7. Verticillate Withwind.



Joy leaved Withwind.

12. UMBRELLA'D WITH WIND.

Plate 58. Fig. 1.

Character of the Species.

Ipomæa quinquefolia.

The Leaves stand five on a Stalk, without separate Footstalks; they are lanced, plain, and smooth; the Flowers stand many on a Footstalk.

Fig. 1. *abc.*

THIS is a Perennial, native of Carolina; a very beautiful Plant, that climbs to fifteen feet high, and is in flower three parts of the year. The Stalk and Leaves are pale, smooth, and glossy: the Flowers are of a strong and elegant crimson.

13. EXPANDED WITH WIND.

Plate 58. Fig. 2.

Character of the Species.

Ipomæa Ægyptica.

The Leaves stand seven on a Stalk, and they are lanced, waved, and sharp-pointed; the Flowers stand in small clusters; and the Stalk is hairy.

Fig. 2. *abcde.*

THIS is a Perennial, native of Ægypt, and of the Brazils; a Plant that climbs to ten or twelve feet high, and flowers in June. The Stalk is hard, and tinged with brown: the Leaves are of a very beautiful, but somewhat yellowish green: the Flowers are of a bright crimson.

14. VERTICILLATE WITH WIND.

Plate 58. Fig. 3.

Character of the Species.

Ipomæa verticillata.

The Leaves are heart-shaped, oblong, and obtuse; the Flowers stand many together on very short Footstalks.

Fig. 3. *abc.*

This is a Perennial, native of Mexico; a Plant that climbs to eight feet high, flowering in July and August. The Stalk is hard, and brown: the Leaves are of a very deep green: the Flowers are rose-coloured.

15. IVY-LEAVED WITH WIND.

Plate 58. Fig. 4.

Character of the Species.

Ipomæa hederæfolia.

The Leaves are cut into three, cornered parts like those of the Ivy; the Flowers stand singly on short Footstalks.

Fig. 4. *abc.*

THIS is a Perennial, native of Cuba; a Plant that clambers up the shrubs to eight or ten feet high, and flowers in June. The Stalk is brown: the Leaves are of a faint and dull green, a little blueish: the Flowers are of an elegant crimson.

16. THREE-

16. THREE-LOBED CLUSTERY WITHWIND.

Plate 59. Fig. 1.

Character of the Species.

Ipomæa hepaticifolia.

The Leaves are cut into three egg-shaped Lobes; the Flowers stand in clusters.

Fig. 1. *a b.*

THIS is a Perennial, native of Ceylon; a Plant that clambers among bushes to three or four feet high, and flowers in August. The Stalk is pale: the Leaves are of a faint and blueish green: the Flowers are very prettily disposed, and very beautiful in themselves; they are placed in little upright clusters, and are of a delicate blue.

17. DOWNY-HEADED WITHWIND.

Plate 59. Fig. 2.

Character of the Species.

Ipomæa tamnifolia.

The Leaves are heart-shaped; very long, and sharp-pointed; the Flowers stand in large tufts, with a mantle of oblong downy Leaves beneath them.

Fig. 2. *a b c.*

THIS is a Perennial, native of Carolina; a very singular, as well as very beautiful Plant, flowering in June and July. The Stalk is hard, smooth, and brown: the Leaves are of a very fine deep green: the Flowers are small, and of a pale blue; the mantle at their base is a singular thing, it is not an object of distinction for a Genus, but will be of vast importance in our Natural method, connecting these with the Umbrella'd, and with the Stellate Plants, by means of the Sherardia.

18. TIGERS FOOT WITHWIND.

Plate 59. Fig. 3.

Character of the Species.

Ipomæa pes tygridis.

The Leaves are composed of seven parts, of which the hinder pair are cut again, and have a kind of heel; the Flowers stand in clusters, with a large spreading mantle below.

Fig. 3. *a b c.*

THIS is a Perennial, native of the East-Indies; a Plant of ten feet high, when well supported, and flowers in June. The Stalk is hairy, and tinged with brown: the Leaves are of a faint yellowish green: the Flowers are of a very pale crimson, almost white.

19. BEARDED WITHWIND.

Plate 59. Fig. 4.

Character of the Species.

Ipomæa barbata.

The Stalk is bearded with rough, hard hairs; the Leaves have seven even and regular parts; the Flowers grow in clusters, with a little upright mantle.

Fig. 4. *a b c.*

THIS is a Biennial, native of China; a Plant of four feet high, which flowered with me at Baywater from Seeds given by Sir Thomas Robinson, Bart. and died the following winter, without perfecting its Seeds. The Stalk is pale: the Leaves are of a blueish green: the Flowers pale crimson.

G E N U S

5



Three-lob'd Clustery Withwind.

Downy headed Withwind.



Tyggers foot Withwind.

4 Bearded Withwind.



Generic Character.



1 Many Leav'd
Greek Valerian.



2 Seven Leav'd
Greek Valerian.



Vol 7 3
Crimson Greek Valerian.



a 4
Spear Leav'd
Greek Valerian.

GENUS VI.

GREEK VALERIAN.

POLEMONIUM.

Plate 60.

Character of the Genus.

The Cup is cut deep into five egg-shaped segments; the Flower has a very short cylindric tube; the verge is cut into five roundish, obtuse, expanded segments; the Seed-vessel is oval, with three ridges, and has three cells.

Plate 60. *a b c d e*.

1. MANY-LEAVED GREEK VALERIAN.

Plate 60. Fig. 1.

LADDER TO HEAVEN.

Polemonium cæruleum.

Character of the Species.

The Leaves are winged with numerous Leaflets; the Cup is longer than the tube of the Flower.

Fig. 1. *a b*.

THIS is a Perennial, native of Europe, Asia, Africa, and America; for we have had the Seeds from all; and it is wild even in some parts of England: it grows to two feet high, and flowers in May. Its beauty has gained it long since a place in our gardens. The Stalk is firm, and ribbed: the Leaves are of a very fine green; and the Flowers beautifully blue: sometimes white.

2. SEVEN-LEAVED GREEK VALERIAN.

Plate 60. Fig. 2.

Polemonium reptans.

Character of the Species.

The Leaves are winged, naturally with seven Leaflets only; the Flowers droop; and the Cup is longer than the tube.

Fig. 2. *a b c*.

THIS is a Perennial, native of Virginia; a Plant lower and less handsome than the former, otherwise very like it, flowering in April. The Stalk is weak, and ribbed: the Leaves are of a faint green: the Flowers are blue.

3. CRIMSON GREEK VALERIAN.

Plate 60. Fig. 3.

Polemonium rubrum.

Character of the Species.

The Leaves are winged, with slender Leaflets; the Cup is much shorter than the tube of the Flower.

Fig. 3. *a b c*.

THIS is a very elegant Plant, and very singular; a Biennial, native of Carolina; and flowers in June. The Stalk is whitish, and two feet and a half high: the Leaves are of a pale, but dull green: the Flowers are of a delicate crimson. This Plant joins the *Ipomæas* and the *Polemoniums*.

4. SPEAR-LEAVED GREEK VALERIAN.

Plate 60. Fig. 4.

Polemonium dubium.

Character of the Species.

The lower Leaves are spear-shaped, and the upper lanced.

Fig. 4. *a b*.

THIS is a Biennial, native of Virginia; a Plant of two feet and a half high, flowering in June. The Stalk is firm, and pale: the Leaves are of a very fine green: the Flowers are of a beautiful blue.

THE END OF THE SEVENTH VOLUME.

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F I N I S.

THE
VEGETABLE SYSTEM.

O R,
The INTERNAL STRUCTURE
AND
The LIFE of PLANTS;

Their PARTS, and NOURISHMENT, Explained;

THEIR
CLASSES, ORDERS, GENERA, and SPECIES,
Ascertained, and Described;

In a METHOD altogether NEW:

COMPREHENDING
AN ARTIFICIAL INDEX,
AND
A NATURAL SYSTEM.

With FIGURES of all the PLANTS; Designed and Engraved by the AUTHOR.

The Whole from NATURE only.

By JOHN HILL, M. D.

MEMBER OF THE IMPERIAL ACADEMY, &c. &c.

VOL. VIII.

Containing a Second SERIES of the ONE-PETAL'D PLANTS.

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M.DCC.LXXIII.

H E R B S.

S E R I E S T H E F O U R T H.

C L A S S T H E S E V E N T H.

Having perfect FLOWERS, of one Petal, regularly divided.

T R I B E I I I.

F A M I L Y I I I.

With the Flower divided into five Parts at the Edge.

THE Plants of this Volume are continued from those which composed the last; being parts of the same extensive Class, the greatest in all Vegetable Nature. They have been scattered over the works of modern writers; as little, and obscure differences in the Filaments or Style disposed them, so that the whole have not been brought to view together. We shall be allowed some praise for rescuing them from forced connections, and unnatural combinations: and it cannot but be a pleasure to a mind capable of entertaining an idea of the order of creation, and consequently of receiving a view of its connected parts, to see the whole together.

THERE can be no doubt but that a Flower of one piece is a plain, a certain, and an obvious distinction; and it will be seen, now all which have that character are brought together, that nothing can be more regular than their progression in the scale of Nature: we are happy that this is so far consistent with this artificial arrangement, that it will in great part appear here; though not in its perfection till hereafter; when in the succeeding part of this work, all the distinctions of Class and Genus being laid aside, Plants will follow one another as God created them.

IN this volume, as in the preceding, little will be said of the virtues of Plants; for the proper place for that enquiry will be in the natural disposition of the Species just mentioned: their very place there leading to it universally. In the mean time the little that is said may be depended on; and for the rest, 'tis better to be ignorant than to be misled.

T H E V E G E T A B L E S Y S T E M.
H E R B S

With one-petal'd Flowers, cut regularly into five segments.

O R D E R II.

Having a single Seed-vessel, containing many Seeds.

G E N U S III.

B E L L F L O W E R.

C A M P A N U L A.

Character of the Genus.

The Cup is of one Leaf, placed upon the Germ, and cut into five sharp segments, which rise and spread out. The Flower is of the shape of a bell; its Base is entire and wide; its verge cut into five short, broad, pointed and expanded segments; and in its bottom rise five convergent films. The Seed-vessel is roundish, and has holes to let out the Seed.

Plate 1. *a b c d e f*.

1. V A R I O U S B E L L F L O W E R.

Plate 1. Fig. 1.

Character of the Species.

Campanula rotundifolia.

The radical Leaves are roundish, with a dent at the Base; those on the Stalk are linear.

Fig. 1. *a b c*.

THIS is a Perennial, native of our high dry grounds, and this so invariably as to be always a mark of a pure air; a little Plant, not exceeding six or eight inches in height, that flowers from June to November. The Leaves are of a dead green, as is also the Stalk; but the Flowers are of a celestial blue.

2. D I F F U S E B E L L F L O W E R.

Plate 1. Fig. 2.

Character of the Species.

Campanula patula.

The Stalk spreads into wide Branches; the Leaves are linear, and serrated, the radical ones lanced.

Fig. 2. *a b c*.

THIS is a Perennial, native of our woods and thickets, but not common; a Plant of ten inches high, flowering in June. The Leaves are of a fresh, but somewhat yellowish green; the Stalk is pale and yellowish; the Flowers are numerous, and of a very beautiful blue.

WE owe the knowledge of this Plant to Merret, who found it near Adforton in Herefordshire, where it still grows; but Merret's account was lightly regarded till Dillenius, who found the same Plant at Elbery Hill near Worcester, figured it and ascertained its distinctive character. It has been since found in Budden Wood, near Loughborough, in Leicestershire, by Mr. Pultney.

3. S I M P L E B E L L F L O W E R.

Plate 1. Fig. 3.

Character of the Species.

Campanula uniflora.

The Stalk is undivided, and supports only one Flower, whose Cup is as large as the Petal.

Fig. 3. *a b*.

THIS is a Perennial, native of Lapland; a Plant of three inches high, flowering in July. The Leaves are of a dusky green; the Stalk is brownish; and the Flowers are blue.

4. D A R K B E L L F L O W E R.

Plate 1. Fig. 4.

Character of the Species.

Campanula pulla.

The Leaves are oval, obtuse, and nurl'd; the Stalk has a bend just under the Flower.

Fig. 4. *a b c d*.

THIS is a Perennial, native of Germany; a Plant of five inches high, flowering in June. The Leaves are of a fine green; the Stalk is brownish; the Flowers are of a dark blue.



Various Bell Flower



Diffuse Bell Flower



Simple Bell Flower



Dark Bellflower



Spiked Bell Flower

Linear Bell Flower

Filmy Bell Flower

5. SPIKED BELLFLOWER.

Plate 2. Fig. 1.

Character of the Species.

Campanula rapunculus.

The radical Leaves are oval and sharp-pointed, those on the Stalk are lanced and waved; the Flowers grow in a clustery spike.

Fig. 1. *a b c.*

THIS is a Biennial, native of dry pastures in many parts of England; a handsome Plant of a foot and half high, flowering in June. The Leaves are of a strong, but not very delicate green; the Stalk is brown; and the Flowers are blue.

THE Root of this Plant is tender, juicy, and very nourishing: it was once in fashion at our tables, but things much inferior have put it out of use. Ignorant Gardeners took up the Root when the Plant was flowering, and being then hard it grew out of credit. I have found that the Roots of the first Autumn and Winter after sowing are excellent.

FOOD seems to have been earlier sought in Plants than physic, for this is the first Bellflower that was known after the revival of letters. Brunfelsius figured it in 1532; but 'tis an indifferent and imperfect representation. Tragus gave a less but better cut of it in 1539. Fucius in 1542, gave a more pompous but less accurate figure: and a little after him, Dorstenius, who translated Eucharius Rhodion, gave another, taken inaccurately from Tragus; and much inferior; though copied by too many since. All these Authors considered the Plant as esculent, and as such it is spoken of down to Gerrard and Parkinson. Some have thought this the Sifaron of Dioscorides; and the Root Tiberius dignified with his ostentatious approbation. Indeed there is nothing in the little Dioscorides has said that contradicts the opinion; and in truth the particular terms in which he mentions it, the delicate flavour and stomachic virtue seem to me to agree better than with the Skirret, which most have thought he meant.

6. FILMY BELLFLOWER.

Plate 2. Fig. 2.

Character of the Species.

Campanula decurrens.

The radical Leaves are oblong oval; those on the Stalk are lanced, and run in Films down the Stalk.

Fig. 2. *a b c.*

THIS is a Biennial, native of Germany; a Plant of two feet high, flowering in July. The Leaves are of a dull and somewhat blueish green; the Stalk is whitish; the Flowers are large, noble, and of a fine blue.

7. LINEAR BELLFLOWER.

Plate 2. Fig. 3.

Character of the Species.

Campanula Persicifolia.

The Leaves on the Stalk are long, linear, and dented; the radical ones oval and undivided.

Fig. 3. *a b.*

THIS is a Biennial, native of the woods of Switzerland; a beautiful Plant, of two feet high, flowering in August. The Leaves are of a bright green; the Stalk is green with a tinge of brown; the Flowers are of a bright blue.

THIS is the Species to which we owe the double blue and white Campanula of our Gardens.

8. PYRA-

8. PYRAMIDAL BELLFLOWER.

Plate 3. Fig. 1.

Character of the Species.

Campanula pyramidalis.

The Leaves are oval, smooth, and serrated; the Branches are short, and the Flowers stand in a long and specious pyramidal spike.

Fig. 1. a b.

THIS is a Biennial, native of the Turkish dominions; a tall and very gaudy Plant, covered with Flowers from June to September. The Leaves are of a fresh and fine green; the Stalk is a yard high, and brownish; the Flowers are numerous, and of a very delicate light blue.

9. EDGED BELLFLOWER.

Plate 3. Fig. 2.

Character of the Species.

Campanula Americana.

The Leaves are tongue-shaped, dented, and edged with a dry Film; the Stalk is branchy.

Fig. 2. a b c.

THIS is a Biennial, native of Virginia; a Plant of two feet and a half in height, flowering in August. The Leaves are of a yellowish green; the Stalk is firm, and brown; the Flowers are of a bright and beautiful blue.

10. DEEP-SAWED BELLFLOWER.

Plate 3. Fig. 3.

Character of the Species.

Campanula liliifolia.

The radical Leaves are lanced, and undivided; those on the Stalk are deeply sawed; the Flowers are placed on branched Footstalks, and hang.

Fig. 3. a b.

THIS is a Biennial, native of China and Tartary; a Plant of a yard high, flowering in June. The Leaves are of a strong but blueish green; the Stalks are brown; the Flowers are of a strong and fine violet blue, with a considerable tinge of purple.

11. RHOMBOIDAL BELLFLOWER.

Plate 3. Fig. 4.

Character of the Species.

Campanula rhomboidalis.

The Leaves swell with two corners toward the middle, and are small at each end; the Flowers all hang on one side of the Stalk.

Fig. 4. a b c.

THIS is a Perennial, native of the high grounds of Italy and Switzerland; a Plant of a foot and half high, flowering in August. The Leaves are of a bright pleasant green; the Stalk is brownish; and the Flowers are of a fine bright blue.

12. RAGGED BELLFLOWER.

Plate 3. Fig. 5.

Character of the Species.

Campanula laciniata.

The radical Leaves are harped, the others lanced, and deep cut, and all are white and downy.

Fig. 5. a b.

THIS is a Perennial, native of the Greek Islands; a Plant of a foot high, flowering in June. The Leaves are of a whitish colour; the Stalks are pale and woolly; the Flowers are of a deep but dead blue.

13. GIANT

3



Pyramidal Bell Flower



Edg'd Bell Flower



Deep Saw'd Bell Flower



Ragged Bell Flower



Rhomboidal Bell Flower



Giant Bell Flower

Oneside
Bell Flower

Rough Bell Flower

13. GIANT BELLFLOWER.

Plate 4. Fig. 1.

Character of the Species.

GIANT THROATWORT.
Campanula latifolia.

The Leaves are oval-lanced; the Stalk is simple, without Branches; the Flowers stand singly on Footstalks; and the Seed-vessels droop. Fig. 1. *abcd.*

THIS is a Perennial, native of our woods and thickets, and of the shaded road sides in many parts of England; a Plant of two feet and a half high, flowering in July and August. The Leaves are of a dull and somewhat brownish green; the Stalk is firm, upright and brown; the Flowers are very large, elegant, and of a glorious blue; the Seed-vessels are brown.

THIS is a Plant known as long as from the days of Tragus, but not by the first Writers after the revival of letters. Both he and Fuchsius have given very good Figures of it; and what is worthy of notice, both speak of it as a Plant of great virtue against sore throats, and disorders of the mouth, particularly the falling of the uvula. Tragus, to whom (p. 927.) we owe the first representation of it, tells us the Germans called it by a name commemorating this, and he thence names it *Uvularia*; and Fuchsius adds to these its qualities his opinion, that it might be of excellent use in other ulcerations. 'Tis strange so easy and well attested a remedy in a case so common and so troublesome should be now utterly lost and unknown, even by name, among Physicians.

14. ONE SIDE BELLFLOWER.

Plate 4. Fig. 2.

Character of the Species.

Campanula rapunculoides.

The Leaves are oval-lanced; the Stalk spreads into many Branches, and the Flowers grow only on one side of them. Fig. 2. *abc.*

THIS is a Perennial, native of the high dry grounds in Italy and France, a Plant of very elegant but singular aspect, flowering in August. The Leaves are of a fresh and pleasant green; the Stalks are greenish; and the Flowers are of a pleasing blue.

15. ROUGH BELLFLOWER.

Plate 4. Fig. 3.

Character of the Species.

Campanula Bononiensis.

The Leaves are oval-lanced, and rugged underneath; the Stalk spreads into a head of clustery Branches at the top. Fig. 3. *abc.*

THIS is a Perennial, native of Italy, on high grounds under shade; a Plant of near a yard high, flowering in August. The Leaves are brownish on the upper side, and white and rough underneath. The Stalks are brown; and the Flowers are of a dull and heavy blue.

16. GRASSY BELFLOWER.

Plate 5. Fig. 1.

Character of the Species.

Campanula graminifolia.

The Leaves are grassy and awl-shaped: the Flowers stand in a thick close cluster at the head of the Stalk, with a circle of Leaves under them.

Fig. 1. *a b c.*

THIS is a Biennial, native of the dry hills of Italy and Spain; a very elegant and a most singular Plant, flowering from June to September. The Leaves are of a strong fresh green; and are so like grass that till the Stalk rises they are not distinguished from it. The Stalk is of a reddish brown, and hairy. The Flowers are of a strong and lively crimson, on which in some parts a little of the Bellflower blue is seen, giving it the hue of purple.

17. HARSH BELFLOWER.

Plate 5. Fig. 2.

Character of the Species.

Campanula spicata.

The Leaves are nearly linear, and rough; the Stalk runs into a long and slender loose Spike at the top, composed of remote alternate Flowers.

Fig. 2. *a b c.*

THIS is a Perennial, a rough and rugged Plant, but beautiful; native of Switzerland and Germany, and flowers in August. The Stalk is of a dull and dusky green; the Leaves are of a pale unpleasant green, and very harsh to the touch. The Flowers are of a cheerful blue, and in very dry places sometimes white.

18. GLORIOUS BELFLOWER.

Plate 5. Fig. 3.

Character of the Species.

CANTERBURY BELLS.

Campanula trachelium.

The Stalk is rigid; the Leaves have long Footstalks; the Flowers grow by threes, each having also its peculiar Footstalk; and their Cups are edged with hairs.

Fig. 3. *a b c d.*

THIS is a Perennial, native of our road sides in many parts of England; a Plant of two feet and a half in height, flowering in August. The Leaves are of a strong and good green; the Stalk is firm and green; the Flowers are immense in size, and of a most glorious blue.

THIS is as common as the Throatwort in many parts of Germany; and so indeed are many of the others: Yet for more than a century after Botany began to restore itself there, the Writers knew only the two kinds here mentioned, the Rampion and Throatwort: so slow have been the advances in this delightful science.



Harsh Bell Flower

Grassy Bell Flower

Glorious Bell Flower

6



Celestine Bell Flower



19. TUFTY BELLFLOWER.

Plate 6. Fig. 1.

Character of the Species.

Campanula glomerata.

The Stalk is simple, and angulated; the Leaves are oval hearted; the Flowers grow in a tuft on the head of the Plant.

Fig. 1. *a b c.*

THIS is a Perennial, native of our high grounds in many parts of England; especially the Northern counties, where indeed most of the English kinds grow in greatest plenty and perfection, a Plant of a foot or little more in length, flowering in August. The Leaves are of a fresh and pleasant green; the Stalk is tender rib'd and greenish; the Flowers are of a very delicate colour, between red and blue, a kind of purple, without the heavy deadness usually in that colour.

20. PENDULOUS BELLFLOWER.

Plate 6. Fig. 2.

Character of the Species.

Campanula Sibirica.

The Leaves are short, and waved; the Stalk branches wide toward the top; the Flowers hang drooping, and the rough Cup covers the Seed-vessels.

Fig. 2. *a b c d.*

THIS is a Perennial, native of Siberia; a Plant of a foot and half in height, and not without its beauty, flowering in July. The Stalk is whitish; the Leaves are of a faint dead green; the Flowers are of a faint blue, with some slight tinge of crimson.

21. COELESTINE BELLFLOWER.

Plate 6. Fig. 3.

Character of the Species.

Campanula Saxatilis.

The Leaves are open and curl'd; the Flowers are placed alternately on long Footstalks, and they hang drooping.

Fig. 3. *a b c.*

THIS is a very elegant and singular Plant; a Biennial, native of the Greek islands; a Plant of little more than a foot in height, flowering in June. The Stalk is pale; the Leaves are of a whitish green; the Flowers are blue, but such a blue as colours used by painters cannot represent; the perfect colour of a pure sky full lighted by the sun.

22. WAVY

22. WAVY BELLFLOWER.

Plate 7. Fig. 1.

Character of the Species.

Campanula cervicaria.

The Leaves are nearly linear, waved and rugged; the Flowers stand close, in thick tufts, on the heads of the Stalks and Branches.

Fig. 1. *abc.*

THIS is a Perennial, native of Italy and Switzerland, a very singular and not unhandfome Plant, flowering in July and August. The Stalk is pale, rough, and a foot and half in heighth; the Leaves are whitish and rugged; the Flowers are of a very singular colour; it is a pale crimson, tinged with a glow of purple. Sometimes also, as in many other of the Bellflowers, they are white.

28. MARIAN BELLFLOWER.

Plate 7. Fig. 2.

Character of the Species.

Campanula medium.

The Leaves are lanced, and waved; the Stalk is simple, and erect; the Flowers stand out upon long Footstalks; and the Cup covers the Seed-veffels.

Fig. 2. *abc.*

THIS is a Perennial; a very beautiful and noble Plant, two feet in heighth, and covered over with majestic Flowers from July to October. It is a native of the woods of Italy and Germany, but has been many years a favourite in our gardens, and a theme of rapture for the Botanic writers, who call it *Viola Mariana*. The Stalk is brown; the Leaves are of a pale green colour and rough surface, but the Flowers make amends in beauty; they are very large, and naturally of a most delicate colour, between crimson and violet, a pale but lively purple; but they are sometimes perfectly blue, and often altogether white.

24. OVAL-HEADED BELLFLOWER.

Plate 7. Fig. 3.

Character of the Species.

Campanula Thyrsoides.

The Stalk is simple and thick set with Leaves; these are nearly linear, and obtuse; the Flowers grow in a thick short spike at the summit.

Fig. 3. *abc.*

THIS is a Perennial, native of Germany; a Plant of a foot and half high, flowering in August. The Stalk is of a reddish brown; the Leaves are of a bright and pleasant green; the Flowers are of a delicate crimson tending to purple.

25. GOLDEN





Golden Bell Flower



Spurd Bell Flower



Venus Bellflower



Bright Eyed Bell Flower

25. GOLDEN BELLFLOWER.

Plate 8. Fig. 1.

Character of the Species.

Campanula Canariensis.

The Leaves stand in pairs ; and are spear-shaped, dented, and placed on Footstalks.

Fig. 1. *a b c d.*

THIS is a Perennial, native of the Canary Islands ; a most singular and extremely beautiful Plant, flowering in August. The Stalk is pale, tender, and four feet high ; the Leaves are of a fresh and fine green ; the Flowers are yellow, a colour very singular among the Bellflowers : they are very large ; and it is no small addition to their beauty, that they hang in a regular and elegant manner.

26. SPURRED BELLFLOWER.

Plate 8. Fig. 2.

Character of the Species.

Campanula fruticosa.

The Stalk is woody ; the Leaves are short and awl-shaped, and they stand out like the rowels of a spur. The Footstalks of the Flowers are very long.

Fig. 2. *a b c.*

THIS is a Perennial, native of the Cape of Good Hope ; a woody Plant, of great beauty, flowering in June. The Stalks lean upon the ground at their Base, and grow to two or three feet in length ; they are brown, woody, and very much branched ; the Leaves are of a dark and dusky green ; the Flowers are innumerable, and their colour is a fine blue.

27. VENUS BELLFLOWER.

Plate 8. Fig. 3.

Character of the Species.

Campanula speculum Veneris.

The Stalk divides into many scattered Branches ; the Leaves are oblong and dented ; and the Cups are longer than the Flower.

Fig. 3. *a b c.*

THIS is an Annual, native of the South of France, as also of many other of the southern parts of Europe ; a Plant of ten inches in length, which lies in great part on the ground, and flowers all summer. The Stalk is tinged with brown ; the Leaves are of a strong green ; the Flowers are of a violet blue. It is common with us in gardens, and has there Flowers deeper than wild ; and sometimes, on the other hand, white.

28. BRIGHT-EYED BELLFLOWER.

Plate 8. Fig. 4.

Character of the Species.

Campanula hybrida.

The Stalk has Branches from its Base ; the Leaves are oblong, and waved ; the Flowers stand clustered ; and their Cups exceed the Petal in length.

Fig. 4. *a b c.*

THIS is an Annual, native of our corn fields in the West of England ; a Plant of five inches high, flowering in July and August. The Stalk is brown ; the Leaves are of a fine green ; the Flowers are blue, with a bright eye of white.

29. THRACIAN BELFLOWER.

Plate 9. Fig. 1.

Character of the Species.

Campanula Pentagonia.

The Stalk divides into a vast multitude of Branches ; the Leaves are linear, and sharp-pointed.

Fig. 1. *abc.*

THIS is an Annual, a native of Thrace, and of Siberia ; a Plant of five or six inches high, most exceedingly branched, and covered with innumerable Flowers all summer, like our Venus Looking-glass, only they are much larger and finer ; the Stalk is of a dirty green ; the Leaves are of a strong green ; the Flowers are of a beautiful blue.

30. WHORLY BELFLOWER.

Plate 9. Fig. 2.

Campanula verticillata.

The Leaves are heart-shaped, deeply dented, and embrace the Stalk ; the Flowers stand in whorly clusters round the Stalk at its Joints.

Fig. 2. *abc.*

THIS is an Annual, native of Virginia ; a Plant of eight or ten inches in height, very singular, though not of great beauty, and flowers in August. The Stalk is brown ; the Leaves are of a strong and fine green ; the Flowers are of a celestial blue when they open perfectly, but that is not often the case. The Plant has less the aspect of the Bellflowers than almost any of the kinds.

31. FORKY BELFLOWER.

Plate 9. Fig. 3.

Character of the Species.

Campanula Erius.

The Stalk is divided in a forked manner ; the Leaves are oblong, sawed, and sharp-pointed ; the Segments of the Flower are unequal.

Fig. 3. *abc.*

THIS is an Annual, native of Spain, and of the South of France ; a pretty little Plant, not exceeding seven or eight inches in length, and flowering in July and August. The Stalk is slender, and of a delicate red ; the Leaves are of a fresh and pleasant green ; the Flowers are of a violet purple, but with less blue than in that Flower. There appears something singular in the inequality of segments in this Flower, as also in its Seed-vessels, but it is as well ranged here as it can be in an artificial method ; when we come to arrange Plants as they stand in Nature, far from giving any perplexity by its irregular structure, it will be found one of those frontier kinds which connect the Genera, destroying their distinctions.



Thracian
Bell Flower



Whorly Bell Flower



Forky Bell Flower



Violet Bell Flower

Joy Bell Flower

Pale Bell Flower

32. VIOLET BELLFLOWER.

Plate 10. Fig. 1.

Character of the Species.

Campanula capensis.

The Leaves are lanced, dentated, and rugged; the Flowers have very long Footstalks; and the Stalk naturally spreads in Branches at the top.

Fig. 1. *abc.*

THIS is an Annual, native of the Cape of Good Hope; a very noble Plant, flowering in August. The Stalk is whitish; the Leaves are pale, and covered with a hairy roughness; the Flowers are of a most elegant crimson with a glow of purple; their size and number, added to this delicacy of colour, give the Plant a title to be ranked among the most beautiful of its kind.

33. PALE BELLFLOWER.

Plate 10. Fig. 2.

Character of the Species.

Campanula faxatilis.

The Leaves are inverted oval, waved a little at the edge; the Stalk has long alternate Branches; the Flowers droop.

Fig. 2. *abc.*

THIS is a Biennial, native of Crete, and other of the Greek Islands; a singular looking Plant, of a foot high, flowering in June. The Stalk is white and woolly; the Leaves also are white, and covered with a light thin down; the Flowers have also their character of paleness; for though they are blue as in most other Bellflowers, they are of a tinct perfectly different from all, and vastly more delicate. The accustomed eye knows there is a peculiar aspect in the Cretan Plants: this has it fully.

34. IVY BELLFLOWER.

Plate 10. Fig. 3.

Character of the Species.

Campanula hederacea.

The Stalk is weak, and trails; the Leaves are hearted, and cut into five lobes; they have Footstalks; and are smooth.

Fig. 3. *abc.*

THIS is a Perennial, a very delicate little Plant, native of the West and North of England, by damp wood sides, and among shaded rocks and springs; a Plant that lies upon the ground, and covers often a vast space together. The Stalk is crimson; the Leaves are of a dark and shining green; the Flowers are of a very beautiful crimson, partaking more or less of the violet. On my low wall at Bayswater, I had them white about four years since, though it is a place perfectly well shaded and watered.

35. ROCK

35. ROCK BELLFLOWER.

Plate II. Fig. 1.

Character of the Species.

Campanula petraea.

The Stalk is simple, and edged; the Leaves are broad lanced, deeply nurlled, and woolly underneath; the Flowers stand in a close head without Footstalks.

Fig. 1. *abc.*

THIS is a Biennial, a very handsome Plant, of two feet high, native of the mountains of the South of Europe; and flowers in June. The Stalk is square, with filmy edges, and is of a pale green; the Leaves are of a fresh green on the upper side, but white and woolly underneath; the Flowers are of a pale crimson, with more or less of the violet tinge; they stand in large tufts on the heads of the Branches, and make a good appearance.

36. HEAVY-HEADED BELLFLOWER.

Plate II. Fig. 2.

Character of the Species.

Campanula barbata.

The Stalk is simple, and almost naked; the radical Leaves are lanced, and hairy; the Flowers are bearded at the opening.

Fig. 2. *abc.*

THIS is a Biennial, native of Switzerland, and of some parts of Germany; a small but singular, and very handsome Plant, flowering in August. The Stalk is of a deep green, and hairy; the Leaves are of a lively green, in which there is yet some obscure tinge of yellowish; the Flowers are large, and of a faint purple.

37. CRIMSON BELLFLOWER.

Plate II. Fig. 3.

Character of the Species.

Campanula Dichotoma.

The Stalk and Branches divide in a forked manner; the Leaves are lanced and smooth; the Flowers have short Footstalks, and they droop.

Fig. 3. *abc.*

THIS is a Biennial, native of Palestine; a Plant of two feet high, covered with Flowers in August. The Stalk is brown; the Leaves are of a very delicate green; the Flowers are not so large as in many of the Bellflower kinds, but their colour is the most delicate that can be conceived, a pure and perfect crimson.

38. HARD



Rock Bell Flower

Crimson Bell Flower

Heavyheaded Bell Flower



Hard leaved Bell Flower



Scattery Bell Flower

38. HARD-LEAVED BELLFLOWER.

Plate 12. Fig. 1.

Character of the Species.

Campanula elatina.

The Leaves are heart-shaped, dented, hoary, and have Footstalks; the Stalk leans; the Flowers stand in short spikes, intermixed with Leaves.

Fig. 1. *a b c.*

THIS is a Biennial, native of the high grounds of Italy and Spain; a Plant of singular aspect, and not without its beauty, growing to eight or ten inches in height, and covered with its little spikes of Flowers from July to the beginning of September. The Stalk is brownish, hard, but weak, and divided into many Branches; the Leaves are rugged, and somewhat harsh; their colour is a faint and dead green; the Flowers are of a very good crimson with but a little blue in it, sometimes scarce any. Besides the spikes of Flowers at the top, there grow often some from the bosoms of the Leaves, which rise uncertainly, and have slender Footstalks: this is an irregularity which frequently happens to the spiked Bellflowers, when the main head of the Plant is by accident broke or injured. In a new Rampion raised this year at Kew, and to be described presently, though the Flowers stand naturally close in the bosom of the upper Leaves, yet, from an accident to the head of a Plant, there rose Flowers from the bosoms of some lower Leaves, on Footstalks two inches or more in length; one, two, or three together; giving the Plant so different an appearance, that I could with difficulty persuade a physician of great learning then present, that the Species was the same.

39. SCATTERY BELLFLOWER.

Plate 12. Fig. 2.

Character of the Species.

Campanula heterophylla.

The Stalk leans; the lower Leaves are oblong, and lanced; the others short, and oval; they are all smooth; and the Flowers are in loose spikes. Fig. 2. *a b c d e.*

THIS is an Annual, native of the East; common in most of the Greek Islands, and in Turkey; a little Plant, of six inches growth, flowering in June. The Leaves are of a thick substance and pale green; the Stalk is hard, though weak, and of a dead green, tinged with brown; the Flowers are of a very good crimson, with scarce any thing of that purplish tinge so common in the Bellflowers; but they are few in number, and stand loose.

40. SOFT BELLFLOWER.

Plate 13. Fig. 1.

Character of the Species.

Campanula mollis.

The Stalk leans; the Leaves are elliptic, short, and downy. Fig. 1. *a b c.*

THIS is an elegant Plant, native of Spain; a Biennial, ten inches in height, and flowering in July. The Stalk is whitish; the Leaves are white, and downy; the Flowers are very large, and of a purplish crimson.

41. LONG-HAIRED BELLFLOWER.

Plate 13. Fig. 2.

Character of the Species.

Campanula stricta.

The Leaves are oblong, obtuse, nurlled, and covered with long hairs; the Stalk is simple. Fig. 2. *a b c.*

THIS is a Biennial, native of Syria; a Plant of ten inches high, flowering in June. The Stalk is tender, and hairy; the Leaves are of a very delicate green; the Flowers stand close in the bosoms of the Leaves, and are crimson.

42. LOADED BELLFLOWER.

Plate 13. Fig. 3.

Character of the Species.

Campanula Limnifolia.

The lower Leaves are oval, and obtuse, the rest linear; the Flowers stand in heavy tufts upon weak Branches.

Fig. 3. *abc.*

THIS is a Biennial, native of Syria; a Plant of eight inches high, flowering in August. The Stalk is brownish; the Leaves are of a fine green; and the Flowers are purple.

43. PETTY BELLFLOWER.

Plate 13. Fig. 4.

Character of the Species.

Campanula Cœnifolia.

The Leaves are oval, eye-lashed, and sharp-pointed; the Stalk supports but one Flower.

Fig. 4. *abc.*

THIS is a Perennial, native of Spain; a Plant of an inch high, flowering in May. The Leaves are of a fresh green; the Stalks are pale; and the Flowers pale blue.

44. RAGGED-CUPPED BELLFLOWER.

Plate 13. Fig. 5.

Character of the Species.

Campanula Alpina.

The Segments of the Cup are sawed; the Leaves are lanced, and sawed; the Flowers hang on one side the the Stalk.

Fig. 5. *abc.*

THIS is a Perennial, native of the mountains of Italy; a Plant of three inches high, flowering in August. The Stalk is brownish; the Leaves are of a fine green; the Flowers are blue.

45. DWARF WOOLLY BELLFLOWER.

Plate 13. Fig. 6.

Character of the Species.

Campanula Alpina.

The Leaves are woolly, oblong, and obtuse; two little Leaves grow on the Footstalk of each Flower.

Fig. 6. *abc.*

THIS is a Biennial, native of the Saxon mountains; a Plant of three or four inches high, flowering in June. The Stalk is white; the Leaves are white, and woolly; the Flowers are of a delicate purple.

46. RUSHY BELLFLOWER.

Plate 13. Fig. 7.

Character of the Species.

Campanula Juncea.

The Stalks are rushy; the lower Leaves are hearted, the others lanced; the Flowers stand in side clusters.

Fig. 7. *abc.*

THIS is a Biennial, native of the mountains in Germany; a Plant of four or five inches high, flowering in July. The Stalk is of a pale green; the Leaves are of a fine fresh green; and the Flowers are purple.

G E N U S

BELL FLOWER.

13







Generic Character



Petty Rampion



Gramineous Rampion



Globe Rampion

GENUS II.

RAMPION.

PHYTEUMA.

Plate 14.

Character of the Genus.

The Cup is of one Leaf cut deeply into five narrow Segments; the Flower is also cut deeply into five narrow Segments, which spread out like a star, and turn back at the points; the Seed-vessel is roundish, with three cells, and many Seeds.

Plate 14. *a b c d e.*

1. PETTY RAMPION.

Plate 14. Fig. 1.

Character of the Species.

Phyteuma pauciflora.

The Leaves are lanced and ferrated; and there is a circle of them under the head of Flowers.

Fig. 1. *a b c.*

THIS is a Biennial, native of the Swiss mountains; a Plant of five or six inches high, flowering in August. The Leaves are of a greyish green; the Stalk is pale, and hairy; the Flowers are of a faint blue.

2. GRAMINEOUS RAMPION.

Plate 14. Fig. 2.

Character of the Species.

Phyteuma hæmispherica.

The Leaves are linear and entire; the Flowers form a roundish head.

Fig. 2. *a b.*

THIS is a Perennial, native of the Swiss and German mountains; a Plant of half a foot in height, flowering in July. The Leaves resemble grass in their fresh green as well as shape; the Stalk is pale; the Flowers are crimson.

3. GLOBE RAMPION.

Plate 14. Fig. 3.

Character of the Species.

HORNED RAMPION.

Phyteuma orbicularis.

The Leaves are slightly hearted and ferrated; the Flowers grow in globular heads.

Fig. 3. *a b c.*

THIS is a Biennial, native of our dry hilly grounds; a Plant of a foot or more in height, flowering in August. The Stalk is pale green, tinged with brown; the Leaves are of a fresh green; the Flowers are crimson.

4. SCATTERED RAMPION.

Plate 14. Fig. 4.

Character of the Species.

Phyteuma Americana.

The Leaves are lanced and ferrated; the Flowers stand scattered in their bosoms.

Fig. 4. *a b.*

THIS is a native of America; a very beautiful Plant, of three feet high, flowering in September. The Stalk is brownish; the Leaves are of a bright and pleasant green; the Flowers are large, and of a most glorious sky blue. This is a new Species, raised this year

1764, from Seeds sent from North America, in the gardens of her Royal Highness the Princess Dowager of Wales at Kew; the first and most successful garden of Exotic Plants now in the world. It is singular, that we never had any Species of Rampion from America before; and indeed in this, the Segments of the Flower are considerably broader than in any Rampion else, and seem to give it place as a frontier Plant, between the Bellflower and this Genus, connecting them, as all Genera are connected in nature.

THIS is an incident not uncommon in the American Plants; and it may seem strange that, in a regular progressive Series, and such the whole Vegetable world is undoubtedly, some intermediate kinds should be placed in a quarter of the globe remote from all the rest; but the fact is certain: and till so great an addition to the knowledge of Plants as the last century brought us, was attained, it would have been impossible to have traced that Series with any tolerable prospect of advantage. Even yet I am afraid many more Species must be known before it can be accomplished.

5. LONG-HEADED RAMPION.

Plate 15. Fig. 1.

Character of the Species.

Phyteuma spicata.

The radical Leaves are hearted; those on the Stalk are lanced, all serrated; the Flowers stand in an oblong cluster, at the head of the Stalk. Fig. 1. *abc.*

THIS is a Biennial, native of the mountainous parts of Germany and France; a Plant of two feet high, flowering in August. The Stalk is greenish, tinged with brown; the Leaves are of a very fine strong green; and the Flowers of a fine deep blue.

6. TUFTED RAMPION.

Plate 15. Fig. 2.

Character of the Species.

Phyteuma comosa.

The radical Leaves are deeply hearted and deep sawed; those on the Stalk are oblong and sawed; the Flowers stand in a flat tuft at the crown of the Stalk. Fig. 2. *abc.*

THIS is a Biennial, native of the mountains of Switzerland and Italy; a Plant of four or five inches high, distinguished by its broad heads of elegant Flowers, which blow in July. The Stalk is of a pale brown; the Leaves are of a dull dead green; the Flowers are crimson.

7. WINGED RAMPION.

Plate 15. Fig. 3.

Character of the Species.

Phyteuma pinnata.

The Leaves are winged; and the Flowers stand scattered. Fig. 3. *abc.*

THIS is a Biennial, native of Crete; a very singular as well as beautiful Plant, flowering all the latter part of summer. The Stalk is brown; the Leaves are of a strong and fresh green; the Flowers are crimson. This is the Rampion which some writers have called *Petromarula*.

G E N U S





Scatterd Rampion.



Generic Character



Umbrellad Haskewort

G E N U S III.

H A S K E W O R T.

T R A C H E L I U M.

Plate 16.

Generic Character.

The Cup is very small, of one Leaf, cut into five short pointed Segments; the Flower is of one Petal, funnel-shaped, with a very long tube: this is slender and cylindric; the verge is small, and cut into five oval Segments, which turn out flat, and are somewhat hollowed: the Seed-vessel is roundish, but with three swellings, and has three cells, in which are multitudes of small Seeds.

Plate 16. *o a b c d e*.

Of this Genus we know but one Species.

U M B R E L L A ' D H A S K E W O R T.

Plate 16.

Character of the Species.

Trachelium cæruleum.

The Leaves are serrated; the Flowers grow in vast round tufts. *a b*.

THIS is a Biennial, native of the woods in Italy, and common also to the low shaded grounds in the East; a Plant of two feet high, of most consummate beauty; flowering from July to the end of October. The Stalk is firm, hard, and brown; the Leaves are of a delicate fresh green; the Flowers are blue. The Branches in this Plant spread out flat; and growing from the bosoms of all the Leaves, from the very bottom to the top of the Plant, gradually decreasing in length, they form a kind of cone, which is in a manner composed of Flowers: for every Branch is terminated regularly by a vast cluster of them spreading into a rounded shape; and of such weight that the Branch can barely support it.

I HAVE wondered often that a Plant of so much beauty should be so little seen in our gardens: it is raised easily enough from Seed, or will raise itself continually if once established in the ground; and it will particularly suit those low walls, which are now built with rubbish in good gardens for the reception of rock, and wall Plants; this being one which delights to grow among rocks, or in the cracks of stones.

GENUS IV.

MARIET.

ROELLA.

Plate 17.

Character of the Genus.

The Cup is large, and placed upon the Germ; it is of one Leaf, cut almost to the base into five Segments; these are narrow and serrated, and stand diverging; the Flower is of one Petal: the tube is short; the verge is large, expanded, and cut into five broad obtuse Segments; and there are five small scales at their base; the Seed-vessel is cylindric with two cells and many Seeds; and the Cup remains fixt to it, and grows larger.

Plate 17. *o a b c d e.*

1. PAINTED MARIET.

Plate 17. Fig. 1.

Character of the Species.

Roella ciliata.

The Leaves are lanced, eye-lashed, and have a strait hard point. Fig. 1. *a b c.*

THIS is a Perennial, native of Africa and Egypt; a Plant of two feet high, with woody branched Stalks, like our heath, and flowers in August. The Stalk is rugged and brown; the Leaves are of a fresh green; the Flowers are purple; and the points of the green serrated Cups appearing between their segments, have a very pretty effect.

2. HOOKED MARIET.

Plate 17. Fig. 2.

Character of the Species.

Roella reticulata.

The Leaves are linear, eye-lash'd, and have a tender point, which turns back in a hooked manner. Fig. 2. *a b.*

THIS is a Perennial, native also of Africa, and particularly frequent about the Cape of Good Hope, where its elegant aspect attracts often the admiration of the sailors, who stick nosegays of it in their breast, and call it *beathbells*. It is a low branched woody-stalked Plant, and flowers in June, and for many months after. The Stalk is pale and greenish; the Leaves are of a pale green; the Flowers are very numerous, and of a delicate crimson: their Cups also appearing as a Fence, placed round them for protection, add greatly to the beauty of the whole.

GENUS



Pointed Mariet.

Hooked Mariet.

BROOKWEED.

Generic
Character.



Long leav'd Brookweed.



Branchy
Brookweed.

SEA TUFT.

Generic Character.



White Sea Tuft.

GENUS V.

B R O O K W E E D.

S A M O L U S.

Plate 18. 1.

Character of the Genus.

The Cup is of one piece; the base is obtuse; the verge is cut into five raised short Segments; the Flower has a short, thick tube; the verge is cut into five obtuse Segments, which lie flat; and there are five small scales at their base. The Seed-vessel is oval held in the Cup: it has only one cell, with many Seeds.

Plate 18. 1. *a b c d e*.

1. LONG-LEAVED BROOKWEED.

Plate 18. Fig. 1.

ROUND-LEAVED PIMPERNELL.
Samolus Europæus.

Character of the Species.

The Leaves are oblong and obtuse; the Stalk is erect, with few Branches.

Fig. 1. *a b*.

THIS is a Biennial, native of our ditch sides; a clean and pretty looking Plant, of eight or ten inches high, flowering in August. The Stalk is brown; the Leaves are of a strong and very fine green; the Flowers are white.

2. BRANCHY BROOKWEED.

Plate 18. Fig. 2.

Character of the Species.

Samolus Africanus.

The Stalk divides into a multitude of Branches; the Leaves are roundish.

Fig. 2. *a b*.

THIS is a Biennial, native of the East Indies; a Plant of a foot high, flowering in May. The Stalk is hard and firm; the Leaves are of a dull and somewhat blueish green; the Flowers are white.

GENUS VI.

S E A T U F T.

C R E S S A.

Plate 18. 2.

Character of the Genus.

The Cup is composed of five distinct, oval, obtuse Leaves; the Flower has a short tube, thickest at the base; its verge is cut into five oval, expanded Segments; the Seed-vessel is oval, and contains several Seeds, connected firmly together so as to appear as one.

Plate 18. 2. *a b c d e*.

Of this Genus we know only one Species.

WHITE SEA TUFT.

Plate 18. Fig. 3.

Character of the Species.

Cressa Cretica.

The Stalk leans; the Leaves are short, lanced, and sharp-pointed. Fig. 3. *a b*.

THIS is a Biennial, native of the shores of Crete; a pretty little Plant, of three or four inches high, flowering in August. The Stalks are grey; the Leaves are white and downy; and the Flowers are white.

GENUS VII.

SKYWEED.

CORIS.

Plate 19. 1.

Character of the Genus.

The Cup is of one Leaf, bellied with a pinched neck, and dented in five, with five thorns; the upper ones simple, the lower ferrated. The Flower is of one Petal; it has a cylindric tube and ragged verge, cut into five oblong, obtuse, narrow Segments, not perfectly equal in size but all dented at the tip. The Seed-vessel is globular, and contains many Seeds.

Plate 19. *a b c d e*.

Of this Genus we know only one Species.

LINEAR SKYWEED.

Plate 19. Fig. 1.

Character of the Species.

Coris Monspeliensis.

The Leaves are linear; and the Stalk leans.

Fig. 1. *a b*.

THIS is an Annual, native of the sea coasts of France and Italy; a Plant of five or six inches high; distinguished by the beauty of its Flowers, which blow in June. The Stalk is red; the Leaves are of a blueish or sea green; the Flowers are of a fine sky blue.

GENUS VIII.

WATERWORT.

HYDROPHYLLUM.

Plate 19. 2.

Character of the Genus.

The Cup is of one piece, cut into five long, narrow pointed, and expanded Segments; the Flower has scarce any tube; the verge is cut into five obtuse raised Segments, nipped at the end; and there are ten little scales placed in pairs towards the bases of these Segments; the Seed-vessel is roundish, and contains two large, round Seeds.

Fig. 2. *a b c d e*.

1. TUFTY WATERWORT.

Plate 19. Fig. 2.

Character of the Species.

Hydrophyllum Virginianum.

The Flowers grow in large tufts; the Leaves are pinnatifid. Fig. 2. *a b*.

THIS is a Perennial, native of Virginia; a Plant of a foot high, flowering in August. The Stalk is green; the Leaves are of a faint green; the Flowers are white.

THERE is a supposed distinct Species of this Plant from Canada; but there seems no other difference but that the Leaves are less divided, as at Fig. 3.

GENUS



Generic Character.

SKY WEED.



Linear Sky Weed.

WATERWORT



Generic Character



Tufted Waterwort

1874

Genus Character

HYPERICUM

Hypericum

Genus Character

Hypericum





Oval Bears Sanicle.



Pinnatifid Bears Sanicle.

GENUS IX.

BEARS SANICLE.

CORTUSA.

Plate 20.

Character of the Genus.

The Cup is of one piece cut deeply into five obtuse expanded segments, whose ends turn back. The Flower has scarce any tube. The verge is cut into five broad roundish segments, with each a tubercle at its base. The Seed-vessel is oblong, pointed, and furrowed, and holds a multitude of small Seeds.

Plate 20. *o a b c d e*.

1. PINNATIFID BEARS SANICLE.

Plate 20. Fig. 1.

Character of the Species.

Cortusa Gmelini.

The Leaves are pinnatifid, and the Cup is longer than the Flower.

Fig. 1. *a b*.

THIS is a Biennial, native of Siberia; a Plant of a Foot high, flowering in August. The Leaves are of a blueish green. The Stalk is naked, firm and brown; the Flowers crown its summit in a regular tuft, and are perfectly yellow.

2. OVAL BEARS SANICLE.

Plate 20. Fig. 2.

Character of the Species.

Cortusa Mathioli.

The Leaves are oval and hearted; the Cup is shorter than the Flower.

Fig. 2. *a b*.

THIS is a Biennial, native of the Austrian mountains, and of many other of the high grounds of Europe and of Asia; a very pretty Plant, flowering in July. The Leaves are of a yellowish green, and the Stalk is simple, a foot high, and of a pale green. The Flowers crown it like a bunch of Cowslips, but with this peculiar grace, that while their front is yellow, their back is of a delicate light crimson.

GENUS X.

SWAN WEE D.

ARETIA.

Plate 21.—I.

Character of the Genus.

The Cup is bell-shaped, of one Leaf cut into five slight obtuse segments.

The Flower has a short oval tube, which is narrow at the neck. The verge is cut into five oval segments, of which two often grow together, and seem one. The Seed-vessel is oval, and contains numerous small Seeds.

Plate 21.—I. *o a b c d e*.

Plate 21. Fig. 1.

Character of the Species.

Aretia Alpina.

The Leaves are oval, and each Stalk supports only one Flower.

Fig. 1. *a b*.

THIS is a Perennial, native of the Swiss mountains; a Plant of an inch high, flowering in June. The Stalk is brown; the Leaves are of a delicate green; the Flowers are beautifully white, and they hang from the weak Stalk, which bends like a swan's neck.

G E N U S XI.
M O O R W O R T.
D I A P E N S I A.

Plate 21.—2.

Character of the Genus.

The Cup is composed of eight Leaves placed as tiles over one another ; they are oval, obtuse, and the five inner ones stand in a circular form. The Flower has a slender cylindric tube of the length of the Cup. The verge is cut into five flat obtuse segments. The Seed-vessel is roundish, with three cells ; the Seeds are numerous and small.

1. E L E V A T E D M O O R W O R T.

Plate 21. Fig. 1.

Character of the Species.

Diapensia Laponica.

The Flowers are placed on Footstalks, and the Leaves stand free. Fig. 1. *a b*.

THIS is a Perennial, native of the mountains in Lapland ; a Plant of an inch high, flowering all their short Summer. The Leaves are fresh green ; the Stalks are brown ; the Flowers are white.

2. C L O S E - F L O W E R E D M O O R W O R T.

Plate 21. Fig. 2.

Character of the Species.

Diapensia Helvetica.

The Flowers stand close upon the tops of the Branches ; the Leaves are clustery.

THIS is a Perennial, native of the German and Swiss mountains ; a Plant of an inch and an half high, flowering in August. The Leaves are deep green, and the Flowers are white.

G E N U S XII.
W A T E R V I O L E T.
H O T T O N I A.

Character of the Genus.

The Cup is of one Leaf, cut into five narrow sharp segments. The Flower has a cylindric tube ; its verge is cut into five expanded segments, which are oblong, oval, and nip'd away at the end. The Seed-vessel is globular with a point ; it is placed on the Cup, and has only one cell with many round Seeds.

Plate 21. *a b c d e*.

1. C L U S T E R Y W A T E R V I O L E T.

Plate 21. Fig. 1.

Character of the Species.

Hottonia palustris.

The Leaves are pinnatifid ; the Flowers surround the Stalk in remote clusters. Fig. 1. *a b*.

THIS is a Perennial, native of our ditches ; a Plant of a foot high, flowering in June. The Leaves are of a dark green ; they lie on the mud ; the Flowers rise above the water, and are of a delicate crimson.

2. S I N G L E - F L O W E R E D W A T E R V I O L E T.

Plate 21. Fig. 2.

Character of the Species.

Hottonia Indica.

The Flowers stand singly in the bosoms of the Leaves ; the Leaves are winged. Fig 2. *a b c*.

THIS is a Perennial, native of the shallow standing waters in the Indies ; a Plant of two feet long, flowering in June. The Leaves are of a good green ; the Stalks are brown, and the Flowers pale crimson.



Generic Character



Elevated Moorwort



Close Flowered Moorwort



Oval Swan Weed



Generic Character

WATER VIOLET.



Generic Character



Clustery Water Violet



Single flowered Water Violet

Generic
Character.



Indented Navelseed



G E N U S XIII.

N A V E L S E E D.

A N D R O S A C E.

Plate 22.

Character of the Genus.

The Flowers rise from one point, and have a Mantle of several Leaves. The Cup is of one Leaf, oblong, pentangular, and cut into five permanent Segments, which are in some Species very large: the tube of the Flower is oval; the verge is cut into five oval, expanded, obtuse, undivided Segments: the Seed-vessel is globular, fixed on the Cup, and contains many small Seeds.

Plate 22. *o a b c d e.*

1. H A R S H N A V E L S E E D.

Plate 22. Fig. 1.

Character of the Species.

Androface villosa.

The Leaves are lanced and undivided; they and the Cups of the Flowers are hairy.

Fig. 1. *a b c.*

THIS is a Perennial, a very pretty but very little Plant, native of the rocks and mountains of Switzerland and Germany, and flowers in June. The Leaves are of a faint green with a harsh whitish hoariness spread over them. The Stalks are weak, and not more than three inches high: the Flowers are milk white.

2. I N D E N T E D N A V E L S E E D.

Plate 22. Fig. 2.

Character of the Species.

Androface Septentrionalis.

The Leaves are oblong, lanced, sawed and smooth: the Cup is shorter than the Flower.

Fig. 2. *a b.*

THIS is an Annual, native of the barren sands of Tartary and of the highest and poorest grounds in Lapland and in Russia, covering with its slight tufts places whereon one would think nothing could grow; a Plant of three or four inches high, flowering in August. The Leaves are of a fresh good green; the Stalks are brownish, and the Flowers are white.

3. C R O W N E D N A V E L S E E D.

Plate 22. Fig. 3.

Character of the Species.

Androface maxima.

The Leaves are oval and toothed; the Cups grow very large.

Fig. 3. *a b.*

THIS is an Annual, native of the corn fields of Italy and Germany; a very singular Plant of six or eight inches high, flowering in June. The Leaves are of a fine strong green: the Stalks are brownish, and the Flowers are of a delicate red.

4. E Y E-

4. EYE-LASHED NAVELSEED.

Plate 23. Fig. 1.

Character of the Species.

The Leaves are lanced, and edged with very firm hairs.

Halleri.
Fig. 1. a b.

THIS is a Perennial, native of the Swiss mountains; a Plant of three inches high, flowering in June. The Stalk is hard, woody and brown; the Leaves are of a deep green, and the Flowers snow white.

5. CRIMSON NAVELSEED.

Plate 23. Fig. 2.

Character of the Species.

The Leaves are very narrow, smooth and sharp-pointed; the Mantle is equal in height to the Flowers.

Androface carnea.

Fig. 2. a b.

THIS is a Perennial, native of the mountainous parts of Germany; a Plant of three or four inches in height, flowering in June. The Stalk is hard and dusky: the Leaves are of a dusky green, and usually brown at the point: the Flowers are of a pale crimson.

6. GRASSY NAVELSEED.

Plate 23. Fig. 3.

Character of the Species.

The Leaves are linear, waved, and smooth: the Mantle is much shorter than the Flowers.

Androface lactea.

Fig. 3. a b.

THIS is a Perennial, native of the high grounds of Germany and Italy; a Plant of four inches high, flowering in August. The Leaves are of a very good fresh green; the Stalks are dusky, and the Flowers are perfectly white.

7. LONG-STALKED NAVELSEED.

Plate 23. Fig. 4.

Character of the Species.

The Leaves are broad, lanced and lightly dented: the Flowerstalks grow to equal the main Stem.

Androface elongata.

Fig. 4. a b.

THIS is an Annual, native of the cultivated grounds in Germany; a Plant of four inches high, flowering in August. The Leaves are of a faint green; the Stalks are tinged with brown: the Flowers are white, and their broad Cups are of a fresh green. While this Plant is in flower, there is nothing peculiar in its aspect; but when the Seed-vessels ripen, their Footstalks grow to an unusual length.

GENUS



Eyelas'd Navel Seed



Crimson Navel Seed



Grassy Navel Seed

Long Stalk'd Navel Seed

PALSY-WORT

Generic
Character



Oxlip Palsy-wort

Primrose
Palsy-wort

Cowslip Palsy-wort



Birds Eye Palsynwort



Auricula Palsynwort

G E N U S XIV.

P A L S Y W O R T.

P R I M U L A.

Plate 24.

Character of the Genus.

The Flowers are placed in tufts with a mantle of many Leaves under them.

The Cup is oblong, pentangular, and cut into five upright, pointed segments : the Flower has a long cylindric tube, with a round neck, from which the verge expands into five obtuse and nip'd Segments : the Seed-vessel is cylindric, long, and opens with ten points at the top, containing many Seeds.

Plate 24. *o a b c d e.*

1. C O W S L I P P A L S Y W O R T.

Plate 24. Fig. 1.

COWSLIP.

Primula officinalis.

Character of the Species.

The Leaves are egg-shaped, and have long Footstalks ; the Flowers are small and tufted.

Fig. 1. *a b c.*

THIS is a Perennial, native of our dry pastures ; a Plant of six inches high, flowering in May. The Leaves are of a dead green ; the Stalks are pale ; the Flowers are yellow.

2. P R I M R O S E P A L S Y W O R T.

Plate 24. Fig. 2.

PRIMROSE.

Primula acaulis.

Character of the Species.

The Leaves are oblong, and without Footstalks ; each Stalk supports one Flower.

Fig. 2. *a b.*

THIS is a Perennial, native of our woods and hedges ; a Plant of five inches high, flowering in April. The Leaves are dark green ; the Stalks are pale ; and the Flowers white.

3. O X L I P P A L S Y W O R T.

Plate 24. Fig. 3.

OXLIP.

Primula elatior.

Character of the Species.

The Leaves are oblong, with a short Footstalk ; the Flowers are large and tufted.

Fig. 3. *a b.*

THIS is a Perennial, native of our hedge sides on high grounds ; a Plant of ten inches high, flowering in May. The Leaves are of a yellowish green ; the Stalk is thick and pale ; the Flowers are yellow.

4. A U R I C U L A P A L S Y W O R T.

Plate 24. Fig. 4.

AURICULA.

Primula farinosa.

Character of the Species.

The Leaves are oval, nurlled, and dusty : the Flowers open perfectly flat.

Fig. 4. *a b.*

THIS is a Perennial, native of the wet grounds on hills in Germany, and universal in our gardens. The Leaves are whitish ; and the Flowers naturally purple, but their variation is endless.

5. B I R D ' S - E Y E P A L S Y W O R T.

Plate 24. Fig. 5.

BIRD'S-EYE.

Primula Auricula.

Character of the Species.

The Leaves are oblong, smooth, and deeply fawed ; the Flowers open flat.

Fig. 5. *a b.*

THIS is a Perennial, native of the hills of Westmoreland and Yorkshire ; a Plant of five inches high, flowering in April. The Leaves are of a yellowish green ; the Stalk is pale ; the Flowers are crimson.

6. SIMPLE PALSYWORT.

Plate 25. Fig. 1.

Character of the Species.

Primula integrifolia.

The Leaves are oblong, smooth, and undivided: the Cups are tubular, with obtuse Segments.

Fig. 1. *a b c.*

THIS is a Perennial, native of the wood sides in the high grounds of Germany and Switzerland; a Plant of four inches high, flowering in June. The Leaves are of a strong green; the Stalk is pale; the Flowers are crimson.

7. BUTTON-HEADED PALSYWORT.

Plate 25. Fig. 2.

Character of the Species.

Primula vitaliana.

The Leaves are linear and undivided; the Flowers stand close in small heads.

Fig. 2. *a b c.*

THIS is a Perennial, native of the Pyrenees and other mountainous parts of Europe; a little singular Plant, of three inches high, flowering in August. The Leaves are of a blueish green; the Stalks are brown; the Flowers white.

8. CORTUSAN PALSYWORT.

Plate 25. Fig. 3.

Character of the Species.

Primula Cortusifoides.

The Leaves are hearted, deep cut, and the lobes serrated, and have an edged Footstalk.

Fig. 3. *a b c.*

THIS is a Biennial, native of Siberia; a Plant of six inches high, flowering in July. The Leaves are of a yellowish green; the Stalk is green; the Flowers are painted with red, white, and yellow, like our Auriculas.

9. WEDGY PALSYWORT.

Plate 25. Fig. 4.

Character of the Species.

Primula minima.

The Leaves are wedge-shaped, and have their broad end deeply serrated.

Fig. 4. *a b c.*

THIS is a Perennial, a Plant of an inch high, native of the highest rocks in Germany; and flowers in June. The Leaves are of a pale greyish green; the Stalks are whitish; the Flowers are of a pale crimson.

THE Ancients found great virtue in the first of these Plants in nervous cases; and we retain the opinion, but without the practice; our old name Palsywort, the sense of their Paralysis, shews it; and our old women talk of it. Physicians may find in it a better medicine than many nauseous and disgusting ones in common use. The Roots have the greatest virtue; and a tincture in spirit a little stronger than what is called Proof; is the best way of giving it.





Generic Character

Flaxey Urnwort

Three Ribid Urnwort

G E N U S X V.

U R N W O R T.

C H I R O N I A.

Character of the Genus.

The Cup is of one piece, cut into five upright, oblong, sharp-pointed Segments: the Flower has a short tube, swelled like a Roman urn; the verge is cut into five large oval expanded Segments: the Seed-vessel is oval, with two cells: the outside coat in some Species is dry, in others fleshy, and in each cell are many small Seeds.

1. T H R E E - R I B B E D U R N W O R T.

Plate 26. Fig. 1.

Character of the Species.

Chironia trinervia.

The Leaves are broad lanced, and have three high ribs: the Cup is filmy, and its Segments are hollowed; the Stalk is tender.

Fig. 1. *a b c.*

THIS is an Annual, native of the Cape of Good Hope; a Plant of two feet and a half in height, extremely handsome, and of great duration in its beauty. The Stalk is whitish; the Leaves are of a pale but very pleasing green; the Flowers are blue.

2. F L A X E Y U R N W O R T.

Plate 26. Fig. 2.

Character of the Species.

Chironia linoides.

The Leaves are linear; the Stalks tender; and the Flowers in spikes.

Fig. 2.

THIS is a Perennial, native of the Cape of Good Hope; a Plant of two feet high, flowering in August. The Stalk is green and juicy; the Leaves are of a strong fresh green; the Flowers are blue. They are nearly as large as the other, and of the same heavenly tint; but they are fewer in number, and sooner fade. That kind is in its beauty many months, indeed a great part of the year; and though an Annual, sowing itself continually, new Plants continually rise to flower.

3. B E L L-

3. BELLFLOWERED URNWORT.

Plate 27. Fig. 1.

Character of the Species.

Chironia campanulata.

The Stalk is tender ; the Leaves are narrow lanced ; the Cup is as long as the Flower.

Fig. 1. *a b c.*

THIS is a Biennial, native of Canada ; a very singular and beautiful Plant, a foot and a half in height, flowering in August. The Stalk is pale ; the Leaves are of a somewhat blueish green ; the Flowers are of a dull crimson, with a tint of purple, and marked with red lines, where the vessels take their course in the manner of that elegant Plant the Embroidered Crane's-bill.

4. RIDGY URNWORT.

Plate 27. Fig. 2.

Character of the Species.

Chironia angularis.

The Stalk is tender, but ridged with firm, brown membranes ; the Leaves are oval, and embrace the Stalk.

Fig. 2. *a b c.*

THIS is a Perennial, native of Virginia ; a Plant of a foot high, flowering in August. The Stalk is pale, but the Films on it are brown : the Leaves are of a strong but yellowish green : the Flowers are of a delicate crimson. In different Plants that flowered this year at Baywater, some had Flowers half an inch broad, others scarce a tenth of an inch. I do not know whether there be that variety where it grows wild.

5. MULTIFID URNWORT.

Plate 27. Fig. 3.

Character of the Species.

Chironia dodecandra.

The Flower is cut deeply into ten, sometimes into twelve, Segments ; the Leaves have short Footstalks.

Fig. 3. *a b.*

THIS is a Biennial, native of Virginia ; a Plant of a foot high, flowering in August. The Stalk is pale ; the Leaves are of a yellowish green ; the Flowers are of a beautiful crimson, with a tinge of purple. When the Flowers have ten Segments, it is only that each natural one is split ; where there are twelve, 'tis wonderful, and approaches, by this deep division, to the character of the double Flowers. The judicious will observe we have in Yellow Centaury an instance approaching to this kind.

2



URNWORT.



Lanced Urnwort



Woody Urnwort



Berry'd Urnwort.

6. LANCED URN WORT.

Plate 28. Fig. 1.

Character of the Species.

Chironia jasminoides.

The Stalk is tender, and spreads into a tufted head: the Leaves are lanced, and very sharp-pointed.

Fig. 1. *a b c.*

THIS is a Biennial, native of the Cape of Good Hope; a Plant of a foot and half high, flowering in June. The Stalk is tender, weak and pale: the Leaves are of a very bright and beautiful green: the Flowers are large, and of a delicate and lively blue.

7. BERRY'D URN WORT.

Plate 28. Fig. 2.

Character of the Species.

Chironia baccifera.

The Stalk is hard: the Leaves are linear and obtuse; the Seed-veffel has a juicy coat, and resembles a berry.

Fig. 2. *a b c.*

THIS is a Perennial, native of the Cape of Good Hope; a bushy Plant, flowering almost all the year. The Stem is brown; the young Shoots are whitish; the Leaves are of a faint pale green; and the Flowers are of a delicate pale purple. Whether the pulpy Fruit grows red or black in ripening I cannot say; what I have seen were green, but with a great deal of the resemblance of a berry.

8. WOODY URN WORT.

Plate 28. Fig. 3.

Character of the Species.

Chironia frutescens.

The Stem is woody; the Leaves are linear, and woolly: the Cup is shaped like a bell, the Segments expanding moderately.

Fig. 3. *a b c.*

THIS is a Perennial, a woody Plant, native of the Cape of Good Hope; growing to two feet high, and flowering all the year. The Stem is woody, and has a brown ruddy Bark. The Leaves are white and woolly, as are also the young Shoots. The Flowers are rose-coloured.

GENUS XVI.

BRIGHTWEED.

PHLOX.

Plate 29.

Character of the Genus.

The Cup is of one piece, oblong, marked with ten ridges, and cut into five points at the edge: the Flower has a tube longer than the Cup; the verge is cut into five expanded, obtuse, and roundish Segments; the Seed-vessel is oval, with three ridges; it has three cells, and in each is one oval Seed.

Plate 29. *a b c d e*.

1. RUGGED BRIGHTWEED.

Plate 29. Fig. 1.

Character of the Species.

Phlox paniculata.

The Leaves are broad lanced, waved, and have a rugged filmy edge: the Flowers stand in great tufts.

Fig. 1. *a b c*.

THIS is a Perennial, native of Pennsylvania; a Plant of five feet high, and of great beauty, flowering in August. The Stalk is brown: the Leaves are of a deep green, but have a brown edge; this addition is sometimes a continued rugged Film, sometimes it breaks into a kind of flight spines: the Flowers are of a bright crimson. We owe the knowledge of this Plant to Mr. Peter Collinson, the great importer of American Plants.

2. GLOSSY BRIGHTWEED.

Plate 29. Fig. 2.

Character of the Species.

Phlox glaberrima.

The Leaves are smooth and slightly lanced: the Flowers grow in a loose open tuft at the head of an upright, firm, simple Stalk.

Fig. 2. *a b c*.

THIS is a Perennial, native of Virginia; a Plant of two feet and a half high, flowering in July. The Stalk is pale; the Leaves are of a dead green; the Flowers are of a delicate crimson.

3. HAIRY BRIGHTWEED.

Plate 29. Fig. 3.

Character of the Species.

Phlox pilosa.

The Leaves are lanced and hairy: the Flowers stand in a round close tuft upon the simple, upright Stalk.

Fig. 3. *a b c*.

THIS is a Perennial, native of Virginia; a Plant of two feet high, flowering in August. The Stalk is rugged and whitish; the Leaves are of a faint green; the Flowers are of an elegant crimson; and their hairy Cups give an air of singularity and prettiness.

4. SPREAD-



Generic Character



Rugged Bright Weed



Hairy Bright Weed



Glossy Bright Weed

BRIGHT WEED



Common Ground



Sharp Bright Weed

Sharp Bright Weed



4. SPREADING BRIGHTWEED.

Plate 30. Fig. 1.

Character of the Species.

Phlox divaricata.

The Leaves are broad lanced; the upper ones stand alternately: the Stalk is forked; and the Flowers are scattered two on a Footstalk. Fig. 1. *a b c.*

THIS is a Biennial, native of Virginia; a Plant of two feet high, flowering in August. The Stalk is of a pale green; the Leaves are of a bright but not strong green; the Flowers are white, with a very little tinge of a blueish or greyish; the Flowers grow naturally two on one Footstalk, but sometimes two Footstalks rise together.

5. FEW-FLOWERED BRIGHTWEED.

Plate 30. Fig. 2.

Character of the Species.

Phlox ovata.

The Leaves are oval, without Footstalks: the Flowers stand scattered, one only upon a Footstalk. Fig. 2. *a b c.*

THIS is a Perennial, native of Virginia; a Plant of two feet and a half high, but of less beauty than most of this kind, flowering in August. The Stalk is of a yellowish green, tinged with brown: the Leaves are of a faded yellowish green: the Flowers are of a strong crimson; but too few for splendor.

6. EXPANDED BRIGHTWEED.

Plate 30. Fig. 3.

Character of the Species.

Phlox subulata.

The Leaves are hairy and awl-shaped; the Flowers stand singly upon very long spread-out Footstalks. Fig. 3. *a b.*

THIS is a Biennial, native of Virginia; a Plant of a foot and a half high, flowering in August. The Stalk is of a pale greyish green, often stained on the sunny side with red; the Leaves are of a pale greyish green; the Flowers are of a pale but very delicate crimson. There is nothing of that gaudy aspect in this Plant which we admire in many of its kind, but it is the most elegant of them all.

7. GAUDY

7. GAUDY BRIGHTWEED.

Plate 31. Fig. 1.

Character of the Species.

Phlox maculata.

The Leaves are lanced, smooth, and half embrace the Stalks: the Flowers grow in a vast tuft at the top, formed of many smaller. Fig. 1. *a b c.*

THIS is a Perennial, native of Virginia; a very noble and elegant Plant, a yard in height, flowering in profusion all the latter part of summer. The Stalk is finely spotted with a deep red: the Leaves hang with a noble freedom, and are of a fine fresh green: the Flowers are crimson.

8. THREE-FLOWERED BRIGHTWEED.

Plate 31. Fig. 2.

Character of the Species.

Phlox Sibirica.

The Leaves are linear, and hairy: the Flowers stand by threes. Fig. 2. *a b c.*

THIS is a Perennial, native of the Northern parts of Asia; a Plant of two feet high, flowering in September. The Stalk is pale; the Leaves are of a faint green; the Flowers are red.

9. LONG-NECKED BRIGHTWEED.

Plate 31. Fig. 3.

Character of the Species.

Phlox fetacea.

The Leaves are very narrow and hard: the Flowers stand singly upon extremely long and slender Footstalks. Fig. 3. *a b c.*

THIS is a Perennial, native of Virginia; a Plant of a foot and a half high, flowering in August. The Stalk is brown; the Leaves are of a dead green; the Flowers are crimson.

10. RUGGED-STALKED BRIGHTWEED.

Plate 31. Fig. 4.

Character of the Species.

Phlox Caroliniana.

The Stalk is rugged and hairy: the Leaves are lanced and smooth: the Flowers grow in a thick tuft on the top of the Stalk. Fig. 4. *a b.*

THIS is a Perennial, native of Carolina; a Plant of two feet and a half high, flowering in September. The Stalk is brownish, tinged with red, and hard to the touch: the Leaves are of a strong green: the Flowers are crimson.

GENUS







Generic Character



Broad Loose Strife



Tufted Loose Strife

GENUS XVII.

L O O S E S T R I F E.

L Y S I M A C H I A.

Plate 32.

Character of the Genus.

The Cup is of one piece, cut into five sharp Segments, which stand upright: the Flower has no tube, it is cut to the base into five broad, flat Segments: the Seed-veffel is globular, having ten valves, but only one cell, in which is a vast globular receptacle and many angulated Seeds.

Plate 32. *a b c d e.*

1. B R O A D L O O S E S T R I F E.

Plate 32. Fig. 1.

Character of the Species.

Lyfimachia vulgaris.

The Leaves are broad lanced; and the Flowers stand in a very broad head, composed of tufts, at the tops of the Branches.

Fig. 1. *a b c.*

THIS is a Perennial, of four feet high, flowering in August, native of our river sides and marshy grounds; a regular, stately, and elegant Plant, which but for the disadvantage of being of our own growth, would be admitted as an ornament of gardens. The Stalk is greyish; the Leaves are of a fine green; the Flowers, which are innumerable, are of a strong fine yellow. *Lyfimachus* gave name to this Plant; it was his sovereign remedy for wounds. Those who called it *Loosestrife* in our language, seem to have adopted the idle origin of its old name, which seems to be composed of two Greek words, signifying to break the combat; and have told us, that if bulls going to fight taste of it, they cease from the contention: so sad a thing is learning without knowledge. *Tragus* and *Fuchsius* has figured this Plant; both well, and both from nature.

2. T U F T E D L O O S E S T R I F E.

Plate 32. Fig. 2.

Character of the Species.

Lyfimachia Thyrsiflora.

The Flowers stand in small round tufts, on Footstalks rising from the bosoms of the Leaves.

Fig. 2. *a b.*

THIS is a Perennial, native of our wet grounds in the North of England, and of some parts of Hertfordshire; a Plant of two feet and a half high, flowering in August. The Stalk is greyish; the Leaves are of a fine but pale green; the Flowers are pale yellow. It is a Plant of great singularity and elegance.

3. RADIATE LOOSESTRIFE.

Plate 33. Fig. 1.

Character of the Species.

Lyfimachia quadrifolia.

The Leaves grow four at a joint, and have no Footstalks: and four Flowers rise also from each joint on long Footstalks. Fig. 1. *abc.*

THIS is a Perennial, native of Virginia; a Plant of two feet and a half high, flowering in August. The Stalk is green: the Leaves are of a fresh and fine green on the upper side, but spotted with black underneath: the Flowers are large, and of a very beautiful yellow; their disposition also in a regular circle round the Stalk, adds not a little to their elegance.

4. UMBRELLA'D LOOSESTRIFE.

Plate 33. Fig. 2.

Character of the Species.

Lyfimachia punctata.

The Leaves are oblong, with a broad base, and have hairy Footstalks: they stand irregularly by twos and fours: the Flowers rise always by fours, and surround the Stalk in an umbrella'd form. Fig. 2. *abc.*

THIS is a Perennial, native of Holland; a Plant of two feet and a half high, flowering in August. The Stalk is green; the Leaves are of a strong and good green, sometimes, but not constantly, dotted and blotched with black: the Flowers are of a fine yellow; these are sometimes also, but not constantly, spotted with tawny dots.

5. EYE-LASHED LOOSESTRIFE.

Plate 33. Fig. 3.

Character of the Species.

Lyfimachia ciliata.

The Leaves are lanced, and have Footstalks edged with stiff hairs: the Flowers bend at the neck of the Footstalk. Fig. 3. *abc.*

THIS is a Biennial, native of Virginia; a Plant of two feet high, flowering in August. The Stalk is pale; the Leaves, which always in this Species stand in pairs, are of a faint and somewhat blueish green; the Flowers are of a deep fine yellow.

6. SPIREY

LOOSE-STRIFF

2



JOSEPHINE



Andromeda
leucophylla

Andromeda
leucophylla

Andromeda
leucophylla



Spiraea Loose Strife



Dark Loose Strife

6. SPIREY LOOSESTRIFE.

Plate 34. Fig. 1.

Character of the Species.

Lyfimachia ephemerum.

The Flowers stand in a single spike; the Segments are rounded, and the Filaments are shorter than the Flowers.

Fig. 1. a b c.

THIS is an Annual, native of the East; a Plant of two feet high, and of a very pretty as well as singular appearance, flowering in August. The Stalk, which is perfectly erect and firm, is of a very pale whitish green; the Leaves are of a blueish green; and the Flowers are of a very pale crimson. The plain and simple manner in which they stand upon the Plant in one regular spirey spike is very pretty; and their colouring is delicate in a great degree. They have naturally a spot of rose colour in the center, which diffuses itself gradually through the Segments till it is lost near the extreme verge, where the colour is perfectly white. This is the state of greatest beauty in the Plant, but often the glow of red is universal, though very pale; and in some Plants this year at Baywater it has been all collected in a dark spot in the center of the Flower, and the rest white.

7. DARK LOOSESTRIFE.

Plate 34. Fig. 2.

Character of the Species.

Lyfimachia atropurpurea.

The Flowers are placed in spikes; the Segments are lanced; and the Filaments are longer than the body of the Flower.

Fig. 2. a b c.

THIS is an Annual, native of the East; a Plant of near a yard high, with many spikes of dusky Flowers, which blow in August. The Stalk is hard and brown; the Leaves are of a strong green, milky, but with somewhat of the blueish tinge; the Flowers are purple; their degree of colour varies, as the season is dry or wet, from a tolerably light purple to very black.

8. DWARF

8. DWARF LOOSESTRIFE.

Plate 35. Fig. 1.

Lyfimachia linum stellatum.

Character of the Species.

The Segments of the Cup are longer than the Flower: the Stalk is vastly
branchy.

Fig. 1. a b c.

THIS is an Annual, native of the barren hills of Italy, and the South of France; a Plant of five inches high, flowering in August. The Stalk is whitish; the Leaves are of a greyish green; the Flowers are white. They make a pretty appearance by means of the starry Segments of the Cup which rise above them.

9. OVAL LOOSESTRIFE.

Plate 35. Fig. 2.

YELLOW PIMPERNELL.

Lyfimachia nemorum.

Character of the Species.

The Stalk leans: the Leaves are oval and sharp-pointed; the Flowers stand
singly on long Footstalks.

Fig. 2.

THIS is a Perennial, native of our damp woods; a very pretty though weak Plant, of about eight inches high, flowering in July and August. The Stalk is brown; the Leaves are of a fine green; the Flowers are of an extremely bright yellow.

10. MONEYWORT LOOSESTRIFE.

Plate 35. Fig. 3.

HERB TWOPENCE.

Lyfimachia nummularia.

Character of the Species.

The Leaves are heart-shaped; the Flowers stand singly; the Stalk creeps.

Fig. 3. a b c.

THIS is a Perennial, native of our meadows; a very pretty Plant, of a foot long, that creeps upon the ground, and covers it for many yards together, killing even the grass; it flowers in June. The Stalk is green; the Leaves are of a very fresh and beautiful green; the Flowers are yellow.

11. TENDER LOOSESTRIFE.

Plate 35. Fig. 4.

PURPLE MONEYWORT.

Lyfimachia tenella.

Character of the Species.

The Stalk is tender, and creeps: the Leaves are oval and sharp-pointed:
the Flowers stand upon long Footstalks.

Fig. 4. a b c.

THIS is a Perennial, native of our boggy ground on heaths; a Plant of two or three inches long, and for the most part lying on the ground; it flowers in June. The Stalk is tinged with brown; the Leaves are naturally of a fine green, but commonly reddish on the Stalks which rise to flower; the Flowers are of a very delicate crimson. The word Purple is very ill apply'd in general by Botanists; they only mean red, without the distinction of crimson, scarlet, or the real purple.



Oval Loose Strife



Dwarf Loose Strife



Tender Loose Strife



Money Wort Loose Strife



Generic Character



White Mullein



Pale Mullein

GENUS XVIII.

MULLEIN.

VERBASCUM.

Plate 36.

Character of the Genus.

The Cup is small, of one piece, cut into five erect sharp-pointed Segments: the Flower has a very short cylindric tube; the verge is cut into five very large oval expanded Segments: the Seed-vessel is roundish, it opens at the top, and has two cells, in each of which are many angulated Seeds.

Plate 36. *o a b c d e*.

1. WHITE MULLEIN.

Plate 36. Fig. 1.

Character of the Species.

WHITE MULLEIN.
Verbascum Thapsus.

The Leaves are downy on both sides, and run down the Stalk. Fig. 1. *a b*.

This is a Biennial, native of our ditch banks and dry pastures; a Plant of five feet high, flowering in August. The Stalk is white; the Leaves also are white, and soft to the touch: the Flowers are large, very numerous, and of a perfectly fine yellow. This is one of the Plants universally known, and generally described by all the Writers from the time of the revival of letters: even the Hortus Sanitatis has a figure of it, ch. 469. One would think the first improvements in this Science began in a very simple manner; for it appears that not what was possessed of most virtues, but what was biggest, and came most immediately under the notice of the eyes, first engaged the attention of these Writers.

2. PALE MULLEIN.

Plate 36. Fig. 2.

Character of the Species:

HOARY MULLEIN.
Verbascum Lychnites.

The Leaves are oblong, deep dented, and wedgy: the Flowers stand loose. Fig. 2. *a b c*.

This is an Annual, native of our dry hilly grounds and barren pastures; a Plant of three feet and a half high, flowering in August. The Leaves and Stalk are white and somewhat woolly: the Flowers have neither the large size or showy colour of those in the former Species; they are fewer, smaller and paler, and the Plant thence far less beautiful.

3. BLACK MULLEIN.

Plate 37. Fig. 1.

COMMON BLACK MULLEIN.
Verbascum nigrum.

Character of the Species.

The Leaves are oblong, somewhat hearted, and have Footstalks; and they are woolly underneath but smooth at top.

Fig. 1. *a b c.*

THIS is a Perennial, native of our road sides and dry pastures; a very handsome Plant of a yard and half high, flowering in July. The Leaves are of a dark green on the upper side and white underneath: the Stalk is pale; and the Flowers are of a good yellow.

4. MOTH MULLEIN.

Plate 37. Fig. 2.

MOTH MULLEIN.
Verbascum blattaria.

Character of the Species.

The Leaves are oblong, smooth, deeply gashed, and embrace the Stalk; the Flowers stand singly upon short Footstalks.

Fig. 2. *a b c.*

THIS is a Biennial, native of our clayey grounds; a very elegant Plant of two feet and an half in height, flowering in July. The Stalk is brown; the Leaves are of a strong and deep green; the Flowers are very large, and of a beautiful yellow, with downy tufts of deep crimson threads in the center. This Plant is not called Moth Mullein without reason: Moths lay their eggs upon it in such prodigious abundance, that their young devour it often before flowering.

5. LYRATE MULLEIN.

Plate 37. Fig. 3.

Verbascum Arcturus.

Character of the Species.

The Leaves are harped or winged with a few small Segments and a great end.

Fig. 3. *a b.*

THIS is a Biennial, native of the Island of Crete; a Plant of a foot and half high, flowering in June. The Stalk is pale, but browned on the sunny side: the Leaves are whitish and downy: the Flowers are small, but of a good yellow, and they stand in a loose spike.

4

6. WAVY



Moth Mullein

Black Mullein

Syrate Mullein

3



6. WAVY MULLEIN.

Plate 38. Fig. 1.

Character of the Species.

Verbascum sinuatum.

The lower Leaves are deeply waved and woolly; the upper are heart-shaped, undivided, smooth, and embrace the Stalk.

Fig. 1. *a b.*

THIS is an Annual, native of the South of France; a Plant of two feet high, flowering in June. The Stalk is brown; the Leaves on its lower Part are whitish, the rest of a fresh green: the Flowers are yellow.

7. DARK-FLOWERED MULLEIN.

Plate 38. Fig. 2.

Character of the Species.

Verbascum Phæniceum.

The Leaves are smooth, oval, and have deep round dents, and there are but few upon the Stalk.

Fig. 2. *a b c.*

THIS is a Biennial, native of the dry grounds and barren hills of Italy; a Plant of a foot and half high, flowering in August. The Stalk is brown: the Leaves are of a dusky green; the Flowers are of a deep purple, almost black.

8. OVAL MULLEIN.

Plate 38. Fig. 3.

Character of the Species.

Verbascum Phlomidoides.

The Leaves are of an oblong oval form, and woolly on both sides; those toward the bottom have Footstalks.

Fig. 3. *a b c.*

THIS is an Annual, native of Italy; a Plant of three feet high, flowering in August. The Stalk is white and woolly; the Leaves also are white, and very soft to the touch: the Flowers are of a delicate yellow with a crimson eye.

9. THICK-LEAVED MULLEIN.

Plate 38. Fig. 4.

Character of the Species.

Verbascum Thapfi.

The Leaves are thick, short, and oval, and they run a little down the Stalk: the Stalk is branched.

Fig. 4. *a b c.*

THIS is a Biennial, native of Italy and Germany; a Plant of four feet high, flowering in August. The Stalk is white: the Leaves are of a very firm substance, and also white: the Flowers are of a pale yellow. This Plant, though it has been observed by most of the Botanical Writers from the time of Dodonæus, is supposed not a distinct Species, but a mongrel between the two first Mulleins here described. Whether it be so, there requires more observation to determine.

10. TWO-

10. TWO-FLOWERED MULLEIN.

Plate 39. Fig. 1.

Character of the Species.

Verbascum Osbeckii.

The Leaves are oblong, smooth, and cut deep ; two Flowers grow upon each Footstalk, and their Cups are woolly.

Fig. 1. a b.

THIS is a Biennial, native of Spain ; a Plant of two feet high, and of very great beauty, flowering in August. The Stalk is of a whitish green ; the Leaves are of a very fine and strong green : the Flowers are yellow, sometimes bright and fine, sometimes greenish, but rendered always beautiful by a radiated eye in the center, sometimes orange coloured, often crimson.

11. THORNY MULLEIN.

Plate 39. Fig. 2.

Character of the Species.

Verbascum spinosum.

The Stalk is woody, and is armed with thorns.

Fig. 2. a b.

THIS is a Perennial, native of the barren grounds in the Island of Crete ; a low but woody Plant, rising scarce to a foot and a half, and dangerous to the touch by its firm and very sharp thorns : it flowers in June. The Stalk is rugged, and of a mixed brownish and whitish colour. The Leaves are of a whitish green ; the Flowers are of a very fine yellow.

12. COWSLIP MULLEIN.

Plate 39. Fig. 3.

Character of the Species.

Verbascum Myconi.

The Stalk is naked : the radical Leaves are oval, rugged and woolly.

Fig. 3. a b c.

THIS is a Biennial, native of the shady parts of the Alps and Pyrenees ; a low Plant, of extreme singularity and beauty, flowering in April ; the last in place of all the Mulleins ; the least like the rest, but truly of their kind. The Leaves are pale, with crimson veins ; the Stalk is six Inches high, thick, naked, and of a fair crimson : the Flowers are also of a very fine and glowing crimson. The old Authors considered this as a Cowslip or Auricula : its aspect very fairly pleads their pardon. They also called the Cowslips little Mulleins : in this there was less reason.

GENUS



Two Flowered Mullein



Thorny Mullein



Cowslip Mullein



Generic Character



Scarlet Pimpernell



Upright Pimpernell



Matted Pimpernell



Grassy Pimpernell

G E N U S XIX.

P I M P E R N E L L.

A N A G A L L I S.

Plate 40.

Character of the Genus.

The Cup is of one piece, cut into five long, narrow, hollowed, and sharp-pointed Segments. The Flower has no tube; it is cut into five oval, sharp Segments, which spread out flat: the Seed-vessel is globular, with one cell; it breaks horizontally in two, and has many angulated Seeds with a great globular receptacle.

Plate 40. *a b c d e*.

1. S C A R L E T P I M P E R N E L L.

Plate 40. Fig. 1.

Character of the Species.

MALE PIMPERNELL.
Anagallis arvensis.

The Stalk leans; the Leaves are oval, and undivided. Fig. 1. *a b*.

THIS is an Annual, native of our corn fields and garden grounds; a Plant of six or eight inches long, flowering all the latter part of summer. The Stalk is of a dead green; the Leaves are of a fresh green, but a little blueish; the Flowers are scarlet. This is the Plant which closes its Flowers against rain. Lord Bacon mentions it with wonder: he calls it Wincopipe; but it is more a wonder his Commentator should ask in a note what Plant he means.

2. U P R I G H T P I M P E R N E L L.

Plate 40. Fig. 2.

Character of the Species.

Anagallis Monelli.

The Leaves are lanced; and the Stalk is erect. Fig. 2. *a b*.

THIS is an Annual, native of Verona; a little Plant of about six inches high, flowering in June. The Stalk is pale and whitish: the Leaves are of a pale green: and the Flowers are blue.

3. F L A T T E D P I M P E R N E L L.

Plate 40. Fig. 3.

Character of the Species.

Anagallis latifolia.

The Stalks are flatted: the Leaves are heart-shaped and amplexicaul. Fig. 3. *a b*.

THIS is an Annual, native of Spain; a Plant of eight inches high, flowering in June. The Stalk is brown: the Leaves are of a faint and deadish green; the Flowers are blue.

4. G R A S S Y P I M P E R N E L L.

Plate 40. Fig. 4.

Character of the Species.

Anagallis linifolia.

The Leaves are linear; and the Stalk is erect. Fig. 4. *a b*.

THIS is an Annual, native of Spain; a Plant of six inches high, flowering in August. The Stalk is brownish: the Leaves are of a light green: the Flowers are crimson.

G E N U S XX.

F E A T H E R F L O W E R.

M E N Y A N T H E S.

Plate 41.

Character of the Genus.

The Cup is small, of one piece, cut into five erect, narrow, sharp-pointed Segments; the Flower has a cylindric tube longer than the Cup; its verge is divided into five lanced Segments which turn back at the points: the Seed-vessel is oval, and contains many Seeds.

Plate 41. *a b c d e*

1. E V E N F E A T H E R F L O W E R.

Plate 41. Fig. 1.

Character of the Species.

FRINGED WATER LILLY.
Menyanthes nymphoides.

The Leaves are hearted, obtuse, and undivided: the Flower is cut into a kind of fringe at the edge.

Fig. 1. *a b c*.

THIS is a Perennial, native of our waters; a Plant that floats upon the surface with its Leaves, and raises its Flowers a few inches higher; they blow in July. The Stalks are pale; the Leaves are of a very fine green; the Flowers are large, and of a beautiful yellow.

2. D E N T E D F E A T H E R F L O W E R.

Plate 41. Fig. 2.

Character of the Species.

Menyanthes Indica.

The Leaves are hearted, dented, and sharp-pointed, and stand single: the Flowers are hairy within.

Fig. 2. *a b c*.

THIS is a Perennial, native of the ditches in Malabar and Ceylon; a Plant which floats its Leaves upon the water, and raises its Flowers a little above it. The Leaves are of a bright green, somewhat blueish: the Stalks are pale: the Flowers are of a beautiful yellow.

3. B U C K B E A N F E A T H E R F L O W E R.

Plate 41. Fig. 3.

Character of the Species.

BUCKBEAN.
Menyanthes trifoliata.

The Leaves grow three upon a Footstalk.

Fig. 3. *a*.

THIS is a Perennial, native of our boggy grounds; a Plant of ten inches high, flowering in June. The Stalks are of a pale green with brown Films: the Leaves are of a fresh and pleasant green: the Flowers are white, with a blush of crimson, and by means of their feathered inside look very beautiful.

G E N U S



Generic Character



Even Feather Flower



Dented Feather Flower



Buckbean Feather Flower

S WBREAD

Pl.



*Generic
Character*



*Hearted
Sonbread*



*Gashed
Sonbread*



*Dented
Sonbread*



Open Sonbread

G E N U S XXI.

S O W B R E A D.

C Y C L A M E N.

Plate 42.

Character of the Genus.

The Cup is of one piece, roundish, and cut into five oval Segments: the Flower has a globular tube larger than the Cup, and it hangs drooping: the verge is cut into five large Segments of a lanced form, which turn back and stand upwards: the Fruit is a globular Berry with one cell, which opens in five parts at the top, and holds many oval Seeds with a loose receptacle.

Plate 42. *a b c d e*.

1. H E A R T E D S O W B R E A D.

Plate 42. Fig. 1.

Character of the Species.

Cyclamen Europæum.

The Flower turns up: the Leaves are hearted and undivided. Fig. 1. *a b c*.

THIS is a Perennial, native of the woods of Germany; a Plant of four or five inches high, flowering in August. The Leaves are of a dark green, marbled with white; and red underneath: the Stalks are crimson: and the Flowers are either crimson, white, or blue, sometimes one, sometimes the other.

2. D E N T E D S O W B R E A D.

Plate 42. Fig. 2.

Character of the Species.

Cyclamen Europæum.

The Flower turns up: the Leaves are hearted and deeply dented. Fig. 2. *a b*.

THIS is a Perennial, native of Europe in shaded grounds; a Plant of five inches high, flowering in August. The Flowers are of a dusky brownish green, marbled with white and brown: the Flowers are crimson, white, or blue, as in the others. 'Tis thought this and the following are but varieties of the first kind; more observation must determine.

3. G A S H ' D S O W B R E A D.

Plate 42. Fig. 3.

Character of the Species.

Cyclamen Europæum.

The Flower turns up: the Leaves are hearted and deep gash'd.

THIS is a Perennial, wild with the former in the woods of Germany; a Plant of four inches high, flowering in August. The Stalks are pale red: the Leaves are of a good green, marbled with white at the edges and crimson underneath as the others: the Flowers are crimson.

4. O P E N S O W B R E A D.

Plate 42. Fig. 4.

Character of the Species.

Cyclamen Indicum.

The Flowers hang down: the Leaves are hearted and dented.

THIS is a Perennial, native of the Indies; a very beautiful Plant, of six inches high, flowering in April. The Leaves are of a dark green, but purple underneath: the Flowers are crimson.

G E N U S

GENUS XXII.

RED W E E D.

D O D E C A T H C O N.

Plate 43—1.

Character of the Genus.

The Flowers grow in a cluster with a small many-leaved Mantle: the Cup is of one Leaf cut into five narrow Segments: the Flower has a very short tube; and its verge is cut into five long, narrow Segments which turn up: the Seed-vessel is oval, of one cell, and holds many small Seeds.

Plate 43—1. *a b c d e*.

1. SPECIOUS RED W E E D.

Plate 43. Fig. 1.

Character of the Species.

Dodecathcon Meadia.

The Leaves are lanced and undivided.

Fig. 1. *a b*.

THIS is a Perennial, native of Virginia; a very beautiful Plant, of ten inches high, flowering in July. The Leaves are of a fine fresh green: the Stalk is tinged with a brownish red: the Flowers are of a most beautiful crimson. Thousands of this Plant were weeded up in the garden of Mr. Peter Collinson before we ever saw its Flowers: they had the appearance of young Lettuces.

GENUS XXIII.

S P I R E W O R T.

S O L D A N E L L A.

Plate 43—2.

Character of the Genus.

The Cup is of one piece, cut into five lanced, upright Segments: the Flower is bell-shaped, and has the verge cut deep into a kind of fringe of many Segments: the Seed-vessel is cylindric, striated obliquely, and contains one cell opening into five points, and holding many very small-pointed Seeds.

Plate 43—2. *a b c d e*.

1. BLUE SPIREWORT.

Plate 43. Fig. 2.

Character of the Species.

Soldanella Alpina.

The Leaves are rounded, hearted at the base and waved.

Fig. 2. *a b*.

THIS is a Perennial, native of the hills in Switzerland and Germany; a Plant of but five or six inches high, but extremely beautiful, flowering in June. The Leaves are of a deep green, with thick red veins: the Stalk is of a pale green, tinged with brown: the spire of Flowers is most elegant; they are of a delicate blue; sometimes crimson, but then much less handsome.

GENUS

RED-WEED

SPIREWORT

Generic
Character

Generic
Character



Specious Redweed.



Blue Spirewort.

TOBACCO.



Common Tobacco

Green Tobacco

GENUS XXIII.

TOBACCO.

NICOTIANA.

Plate 44.

Character of the Genus.

The Cup is of one piece, egg-shaped, and cut into five short and sharp Segments at the rim : the Flower is funnel-shaped ; it has a tube a little longer than the Cup, a swelling body, and a verge cut into five large but not deep Segments folded at the base : the Seed-vessel is oval, with a line on each side, and has two cells, with many rugged and somewhat kidney-shaped Seeds.

Plate 44. *a b c d e.*

1. COMMON TOBACCO.

Plate 44. Fig. 1.

Character of the Species.

Nicotiana Tabacum.

The Leaves are oval lanced, and they run down the Stalk : the Segments of the Flower are sharp pointed.

Fig. 1. *a b c.*

THIS is an Annual, native of America; a tall and handsome Plant, of wonderful value as an article of commerce, flowering in July. The Stalk is brown, firm, erect, and five feet high; the Leaves are somewhat rugged, very large, and of a dead green: the Flowers are of a very beautiful crimson. The use, or rather the abuse of this Plant for smoaking and for snuff are enough known; but it may be useful to add here, that one died lately in this neighbourhood from the effect of a clyster of Tobacco made very strong.

2. GREEN TOBACCO.

Plate 44. Fig. 2.

Character of the Species.

Nicotiana ruffica.

The Leaves are oval, undivided, and placed on Footstalks : the Segments of the Flower are obtuse.

Fig. 2. *a b c.*

THIS is an Annual, native of America; a Plant of a yard high, coarse in its aspect, and without the beauty of the former; it flowers in August. The Stalk is thick and green: The Leaves are of a strong and fresh green: the Flowers also are of a pale faint green.

3. WOODY TOBACCO.

Plate 45. Fig. 1.

Character of the Species.

Nicotiana fruticosa.

The Leaves are narrow lanced, with a broad Footstalk that half embraces the Stalk : the Flowers have sharp Segments ; the Stalk is woody.

Fig. 1. *a b c.*

THIS is a Perennial, native of the Cape of Good Hope, and of the East Indies ; a Plant of five feet high, flowering in August. The Stalk is of a greenish brown : the Leaves are of a bright and fine green : the Flowers are of a most beautiful crimson. A mongrel Plant rose with me last year from the Seeds of the common Tobacco, impregnated by the Farina of this ; an Annual with narrow Leaves.

4. STINGING TOBACCO.

Plate 45. Fig. 2.

Character of the Species.

Nicotiana urens.

The Leaves are heart-shaped, dented, and have Footstalks : the Flowers are placed in bending tufts ; the Stalk is hard, prickly, and stinging to the touch.

Fig. 2. *a b c.*

THIS is a Biennial, native of South America ; a Plant of four feet high, flowering in August. The Stalk is green and rugged, often brown toward the base : the Leaves are of a very fine green ; the Flowers are of a delicate crimson, sometimes very pale, or nearly white.

5. DWARF TOBACCO.

Plate 45. Fig. 3.

Character of the Species.

Nicotiana pumila.

The radical Leaves are oblong oval : there are only a few little Leaves upon the Stalk : the Flowers are clustered, and have sharp Segments.

Fig. 3. *a b.*

THIS is an Annual, native of Vera Cruz, and other parts of South America ; a Plant of ten or twelve inches high, flowering in July. The Leaves are of a pleasing green ; the Stalk is brownish ; and the Flowers are yellow. This has nothing of that stateliness and beauty which is universal among the other kinds.

TOBACCO
2



Dwarf
Tobacco



Stinging
Tobacco



Woody
Tobacco



Tobacco

3



6. CLUSTERY TOBACCO.

Plate 46. Fig. 1.

Character of the Species.

Nicotiana paniculata.

The Leaves are heart-shaped, but without much indenting at the Stalk ; they are lightly waved, and placed on Footstalks ; the Flowers grow in clusters, and have the Segments obtuse.

Fig. 1. *a b.*

THIS is an Annual, native of Peru ; a Plant of four feet and a half high, flowering in August. The Stalk is brown ; the Leaves are of a pale, but bright and pleasing green ; the Flowers are pale crimson. It has a beauty beyond the other Species, in that the Flowers do not grow in spikes as in all them, but in tufts or clusterly heads ; but it is beneath them in the form of each Flower, for the Segments being obtuse give it a coarse and heavy look.

7. CLAMMY TOBACCO.

Plate 46. Fig. 2.

Character of the Species.

Nicotiana glutinosa.

The Leaves are heart-shaped, rugged, waved, and raised upon the surface in uneven forms : the Flowers have three of the Segments longer than the other two.

Fig. 2. *a b c.*

THIS is an Annual, native of Peru ; a Plant of near a yard in height, flowering in August. The Leaves are of a dead and somewhat dusky green : the Stalk is of a pale blueish green, tinged on one side with red : the Flowers are of a delicate crimson ; they often grow all on one side of the Stalk, and it has been considered as a specific mark of distinction, but it is not constant. The Plant flowered with me last year in great perfection ; and the Stalks were set on both sides with Flowers.

GENUS

GENUS XXIV.

THORNAPPLE.

D A T U R A.

Plate 47.

Character of the Genus.

The Cup is of one piece, oblong, tubular, bellied, marked with five ridges, and dented in five parts at the edge: the base is a separate part from its body, and remains when that is fallen: the Flower is shaped like a funnel; its tube is cylindric; its body expands, and the verge is folded in five places, and a little dented between the folds so as to give it five broad, short Segments with clawy points: the Seed-vessel is large, oval, inclining to round, and contains in two cells a number of large kidney-shaped Seeds.

Plate 47. *a b c d e*.

1. OVAL THORNAPPLE.

Plate 47. Fig. 1.

Character of the Species.

Datura stramonium.

The Fruit is oval, erect, and has sharp but soft thorns: the Leaves are oval, smooth, and deeply waved.

Fig. 1. *a b c*.

THIS is an Annual, native of South America; a Plant of two feet and a half high, flowering in August. The Stalk is green, tinged sometimes with brown: the Leaves are of a very fine glossy green: the Flowers are white. This Plant grows so freely in England, that scattered Seeds often raise it to great perfection upon dunghills. The outer rind of the Fruit is often eat quite away by insects, in which case it makes a very delicate skeleton.

2. ROUND THORNAPPLE.

Plate 47. Fig. 2.

Character of the Species.

Datura metel.

The Fruit is round, thorny, and hangs down: the Leaves are hoary. Fig. 2. *a b*.

THIS is an Annual, native of Asia and Africa; a bushy Plant, of four feet high, flowering in August. The Stalk is thick, pale, and tinged with red: the Leaves are of a pale and dead looking green, but their ribs often are red: the Flowers are very large, and perfectly white, and always are cut deeply in the folds.

3. T E R-

THORNAPPLE



Generic
Character



Round Thorn Apple

Oval Thorn Apple

THORN APPLE

2



1 Terrible
Thorn Apple

2 Warty Thorn Apple

3. TERRIBLE THORNAPPLE.

Plate 48. Fig. 1.

Character of the Species.

Datura ferox.

The Fruit is oval, it stands erect, and is covered with very large sharp thorns, which are ribbed and hollowed; and have the hollow filled with a spongy or cottony substance.

Fig. 1. *a b c.*

THIS is an Annual, native of China; a Plant of a yard or more in height, flowering in August. The Stalk is tender, and of a whitish green: the Leaves are of a very delicate and bright green: the Flowers are white. The thorns upon it are as sharp as needles, and very firm: 'tis almost impossible to touch it without hurt. They are at first round in the circumference, and entire; but they soon split and shew their inside stuffing, which is like the pith of some Plants, but more tough and elastic. Three or four thorns much larger than the rest sometimes stand erect upon the top of the Fruit; but this is not constant.

4. WARTED THORNAPPLE.

Plate 48. Fig. 2.

Character of the Species.

Datura fastuosa.

The Fruit is globular, and hangs drooping; it is not beset with thorns, but covered with a kind of warts; the Leaves are smooth, broad lanced, and deeply dented.

Fig. 2. *a b c.*

THIS is an Annual, native of Egypt; a tall and stately Plant, of very great beauty, flowering in August. The Stalk is of a pale green; the Leaves are smooth, and of a deadish green; the Flowers are crimson. They have a great variation both in form and colour; naturally they are simple, and crimson entirely; sometimes they grow one within another, as the Cowslips, which we call two in a hose; sometimes they are only crimson on the outside, and white within; and sometimes they are white entirely.

5. GIANT THORNAPPLE.

Plate 49. Fig. 1.

Character of the Species.

Datura tatula.

The Fruit is oval, with some irregularities, and is covered with firm thorns : the Leaves are deeply hearted, and cut into great irregular sharp Segments at the edges.

Fig. 1. *a b c.*

THIS is an Annual, native of Turkey ; a very noble Plant, and singularly beautiful, growing to five feet or more in height, and covered with hundreds of Flowers at a time all the latter part of summer. The Stalk is tender and juicy, but an inch thick or more ; its colour is crimson, and it is on all the upper part very elegantly marbled with white : the Leaves are of a deep but very fine green, waved, curled, and dented in a thousand manners : the Flowers are of a pale violet purple, and sometimes white ; the Fruit is very large and threatening in its aspect, but the thorns are tender.

6. WOODY THORNAPPLE.

Plate 49. Fig. 2.

Character of the Species.

Datura arborea.

The Stem is woody ; the Fruit is oval and hangs down ; it is covered with obtuse warts, and a few loose hairs.

Fig. 2. *a b c.*

THIS is a Perennial, native of Peru ; a woody Plant, which grows to a considerable height, and spreads in many Branches. The Leaves are of a dead and somewhat blueish green ; the young Shoots are of the same blueish green, but paler ; the Flowers are white ; sometimes they have a very slight tinge of purplish, but 'tis oftener wanting : the tubercles on the Fruit are hard and shelly, and the hairs rough and brown ; sometimes these stand very thick, but oftener they are few, and sometimes they are wanting entirely.

GENUS

3



Giant Thornapple

Woody
Thornapple

HENBANE



Amplexicaul Henbane

White Henbane

G E N U S XXV.

H E N B A N E.

H Y O S I C A M U S.

Plate 50.

Character of the Genus.

The Cup is of one piece, cylindric, bellied below, and cut into five sharp Segments at the edge : the Flower has a short cylindric tube : the verge spreads out into a funnel-like shape, and is cut into five obtuse Segments, one of which is usually broader than the others. The Fruit is an oval Seed-vessel, cut off at the crown, where it has a flat cover ; it has two cells, with numerous ragged Seeds.

Plate 50. *a b c d e*.

1. A M P L E X I C A U L H E N B A N E.

Plate 50. Fig. 1.

Character of the Species.

Hyosicamus niger.

The Leaves are oblong, deep cut, and without Footstalks ; they embrace the Stalk at their base : the Flowers also have no Footstalks. Fig. 1. *a b c*.

THIS is a Biennial, native of our ditch banks, and other waste grounds ; a straggling spreading Plant, of two feet high, flowering in July. The Stalk is pale and downy : the Leaves are whitish and clammy to the touch : the Flowers have a kind of dismal beauty ; their heavy aspect seems to denote the poison of the Plant, but they are embroidered as it were with crimson veins of great beauty, and with a regularity scarce seen in any other Plant ; not less than that in the Roman Crane's-bill.

2. W H I T E H E N B A N E.

Plate 50. Fig. 2.

Character of the Species.

Hyosicamus albus.

The Leaves are oblong, placed on Footstalks, and cut into obtuse Segments : the Flowers have short Footstalks. Fig. 2. *a b*.

THIS is an Annual, native of Spain and Italy ; a Plant of two feet high, flowering in August. The Stalk is pale : the Leaves are whitish : the Flowers are white, streaked with crimson, and sometimes there is crimson in blotches on different parts of the Flower.

THE Seeds of this are ordered in some medicines ; but those of the former are commonly used in their place : both had better be avoided. They are opiates with a mischievous addition ; and plain Opium, which we understand, is better in their place.

3. GOLDEN HENBANE.

Plate 51. Fig. 1.

Character of the Species.

Hyosicamus aureus.

The Leaves have Footstalks; they are deep cut in with sharp Segments:
the Flowers have Footstalks.

Fig. 1. a b c.

THIS is a Perennial, native of Crete; a Plant of a foot and half high, but weak, and leaning, which flowers in June. The Stalk is pale, but usually tinged with red: the Leaves are of a faint but pleasing green: the Flowers are of a beautiful gold yellow.

4. DWARF HENBANE.

Plate 51. Fig. 2.

Character of the Species.

Hyosicamus pufillus.

The Leaves are lanced and dented; the Cups have thorny Segments.

Fig. 2. a b c.

THIS is an Annual, native of Persia; a Plant of about ten inches high, flowering in August. The Stalk is tender and pale: the Leaves are of a pale whitish green: the Flowers are of a faint whitish colour, streaked with crimson or yellow; sometimes yellow entirely.

5. BLADDER HENBANE.

Plate 51. Fig. 3.

Character of the Species.

Hyosicamus physalodes.

The Leaves are oval and undivided; the Cups are swollen and globular.

Fig. 3. a b c.

THIS is a Biennial, native of Siberia; a Plant of a foot and half high, flowering in August. The Stalk is pale: the Leaves are of a whitish green, with often a crimson middle rib: the Flowers are of a dusky white, streaked and embroidered as it were with crimson.

6. VARIOUS LEAVED HENBANE.

Plate 51. Fig. 4.

Character of the Species.

Hyosicamus reticulatus.

The Leaves are hearted, jagged, and have Footstalks; but those under
the Flowers are oval, obtuse, and entire.

Fig. 4. a b c.

THIS is an Annual, native of Crete and of Egypt; a Plant of two feet high, flowering in August. The Stalk is green: the Leaves are of a whitish green on the upper side, and a plain green below: the Flowers are white, often dashed with a faint crimson, and always veined with a great deal of elegance with the same colour.

GENUS

HENBANE

2



Dwarf Henbane

Bladder
Henbane

Various leav'd Henbane

Generic Character

Generic Character

LOVE FLOWER

Oval Adder Root

Generic Character

WORM FLOWER

Generic Character

White Worm Flower

Oval Love Flower



G E N U S XXVI.
G R O U N D W E E D.
E P I G Æ A.

Plate 52.

Character of the Genus.

There are two Cups : the outer consists of three oval, lanced, sharp-pointed Leaves, of which the outermost is largest : the inner is of one piece, cut into five lanced Segments, and is larger than the other : the Flower has a cylindric tube hairy within : the verge is cut into five oval, oblong Segments ; the Seed-vessel is globular with many Seeds.

Plate 52. *a b c d*.

1. HEARTED GROUNDWEED.

Plate 52. Fig. 1.

Character of the Species.

The Leaves are oblong, hearted and waved : the Stalk creeps.

*Epigæa repens.*Fig. 1. *a b*.

THIS is a Perennial, native of the woods of Canada and Virginia ; a Plant of a foot long, which lies for the most part upon the ground, and flowers in August. The Stalk is brown ; the Leaves are of a dull green ; the Flowers are very pale crimson.

G E N U S XXVII.
A D D E R R O O T.
O P H I O R H I Z A.

Plate 52—2.

Character of the Genus.

The Cup is of one Leaf cut into five equal Segments : the Flower is of one Petal funnel-shaped, and cut into five obtuse expanded Segments ; the Seed-vessel is of two lobes, with numerous angulated Seeds.

Plate 52—Fig. 2. *a b c d e*.

1. OVAL ADDER ROOT.

Plate 52—2. Fig. 1.

Character of the Species.

The Leaves are oval : the spikes of Flowers are strait.

*Ophiorhiza mitreola.*Fig. 1. *a b*.

THIS is a Perennial, native of Cuba ; a Plant of eight inches high, flowering in August. The Stalk is pale ; the Leaves are of a good green ; the Flowers are white.

2. LANCED ADDER ROOT.

Plate 52—2. Fig. 2.

Character of the Species.

The Leaves are lanced : the spikes of Flowers curl backwards.

*Ophiorhiza mungos.*Fig. 2. *a b*.

THIS is a Perennial, native of Japan ; a Plant of ten inches high, flowering in June. The Stalk is pale ; the Leaves are dark green ; the Flowers are white.

G E N U S XXVIII.
L O V E F L O W E R.
E R A N T H E M U M.

Plate 52—3.

Character of the Genus.

The Cup is very small, of one piece, cut into five sharp Segments ; the Flower is funnel-shaped ; the tube very long and very slender ; the verge cut into five oval Segments, which lie flat ; the Seed-vessel is oval, with two cells, and one Seed in each.

Plate 52—3. *a b c d e*.

1. OVAL LOVE FLOWER.

Plate 52—3. Fig. 2.

Character of the Species.

The Leaves are oval ; and the Stalk is bent from joint to joint.

*Eranthemum capense.*Fig. 2. *a b*.

THIS is a Biennial, native of the Cape of Good Hope ; a Plant of a foot and half high, flowering in June. The Stalks and Leaves are of a blueish green ; the Flowers are crimson.

GENUS XXIX.
WORM FLOWER.
SPIGELIA.

Plate 52—4.

Character of the Genus.

The Cup is small, of one piece, cut into five slight, sharp Segments; the Flower is funnel-shaped; the tube is much longer than the Cup; the verge spreads out, and is cut into five sharp Segments; the Seed-vessel is a double oval, divided into two cells, which almost separate, and each contains many small Seeds.

Fig. 3. *a b c d.*

1. WHITE WORM FLOWER.

Plate 52—4. Fig. 3.

Character of the Species.

Spigelia anthelmia.

The Leaves grow in a kind of crown at the head of the Stalk.

THIS is an Annual, native of Brasil, and many other parts of America; a Plant of six inches high, flowering in August. The Stalk is brownish; the Leaves are of a fine green; the Flowers are white. It is a celebrated worm medicine, but unsafe.

GENUS XXX.
GENTIAN.
GENTIANA.

Plate 54.

Character of the Genus.

The Cup is of one piece, hollowed, and cut into five raised Segments; the Flower has a tube unperforated at the base; its verge is cut more or less deep into five lanced Segments, which spread out; the Seed-vessel is oblong, cylindric, sharp-pointed, but lightly split in two at the summit. It contains one cell with two valves, and a great many small Seeds which adhere to two receptacles fixed lengthwise to each valve.

Plate 54. *a b c d e.*

1. GREAT YELLOW GENTIAN.

Plate 54. Fig. 1.

Character of the Species.

Gentiana lutea.

The Flowers are deep cut; they grow in clusters, surrounding the Stalk at its joints: the Cups are filmy.

Fig. 1. *a b c.*

THIS is a Perennial, native of the mountains of Switzerland and Germany; a Plant of two feet high, flowering in July. The Stalk is green, but brown at its joints; the Leaves are of a showy dark green; the Flowers are very beautiful, very numerous, and of a delicate yellow. This is the Gentian whose root is used in medicine: but there have of late been great abuses in the gathering it.

2. GREAT CRIMSON GENTIAN.

Plate 54. Fig. 2.

Character of the Species.

Gentiana purpurea.

The Flowers are bell-shaped; they surround the joints of the Stalks: the Cups are filmy in their upper part.

Fig. 2. *a b c.*

THIS is a Perennial, native of the Alps and Pyrenees, and other mountains of Europe; a Plant of two feet high, flowering in August. The Stalk is of a blueish green, as are also the Leaves; the Flowers are crimson.

3. GREAT DOTTED GENTIAN.

Plate 54. Fig. 3.

Character of the Species.

Gentiana punctata.

The Flowers are deep cut, and grow upon branchy Footstalks: the Cups are firm and leafy.

Fig. 3. *a b c.*

THIS



Generic Character

Great Dotted Gentian

Great Yellow Gentian

Great Crimson Gentian

THIS is a Perennial, native of the Swifs, Auftrian, and Siberian mountains; a Plant of a foot and half high, flowering in Auguft. The Stalk is brownish; the Leaves are of a light and bright green; the Flowers are yellow, dotted with a dusky brown; very fingular, but inferior in beauty to the preceding.

4. TWIN-FLOWERING GENTIAN.

Plate 55. Fig. 1.

Character of the Species.

Gentiana Asclepiadea.

The Flowers grow in pairs in the bosoms of the Leaves, and are bell-shaped; the Leaves embrace the Stalk.

Fig. 1. *a b c.*

THIS is a Perennial, native of the high grounds in Germany, Switzerland, and Africa; a Plant of ten inches high, flowering in Auguft. The Stalk is firm and brown; the Leaves are of a very fine strong green; the Flowers are blue.

5. LINEAR GENTIAN.

Plate 55. Fig. 2.

Character of the Species.

CALATHIAN VIOLET.

Gentiana pneumonanthe.

The Leaves are linear: the Flowers are bell-shaped, with very slight Segments.

Fig. 2. *a b c.*

THIS is a Perennial, native of our damp grounds, but not common; a Plant of eight inches high, flowering in Auguft. The Stalk is brownish: the Leaves are of a faint green: the Flowers are of a glorious blue.

6. THREE-RIBBED GENTIAN.

Plate 55. Fig. 3.

Character of the Species.

Gentiana saponaria.

The Flowers are bell-shaped and bellied, with short, sharp Segments: each Leaf has only three ribs.

Fig. 3. *a b c.*

THIS is a Perennial, native of North America; a Plant of ten inches high, flowering in September. The Stalk is pale; the Leaves are of a very fine fresh green; the Flowers are of a beautiful lively blue.

7. HAIRY GENTIAN.

Plate 55. Fig. 4.

Character of the Species.

Gentiana villosa.

The Flowers are oblong, bell-shaped and swollen; the Leaves are lanced and hairy.

Fig. 4. *a b c.*

This is a Perennial, native of Virginia; a Plant of a foot high, flowering in Auguft. The Stalk is green; the Leaves are of a bright green, covered with harsh white hairs; the Flowers are blue.

8. DWARF GENTIAN.

Plate 55. Fig. 5.

Character of the Species.

Gentiana acaulis.

The Flower is bell-shaped, and longer than the Stalk: the Leaves are oval.

Fig. 5. *a b.*

THIS is a Perennial, native of the German mountains; a very specious though very low Plant, flowering in April. The Leaves are of a dark green; the Stalk is scarce an inch high, and brown; the Flower is very large, and of a heavenly blue.

9. VAST

9. VAST FLOWERED GENTIAN.

Plate 56. Fig. 1.

Character of the Species.

Gentiana verna.

The Flower is funnel-shaped, with five plaits and five slight dents: the Leaves are broad lanced.

Fig. 1. *abc.*

THIS is a Perennial, native of the hills in Germany; a Plant of four inches high, flowering in April. The Leaves are of a good green; the Stalk is brown; the Flowers are blue.

10. SERRATED OBTUSE GENTIAN.

Plate 56. Fig. 2.

Character of the Species.

Gentiana Bavarica.

The Flower is funnel-shaped, dented in five, and serrated: the Leaves are obtuse.

Fig. 2. *abc.*

THIS is a Biennial, native of Switzerland and Germany; a Plant of five inches high, flowering in Autumn. The Stalk is pale; the Leaves are of a good green; the Flower, for the Stalk bears but one, is blue.

11. ALTERNATE GENTIAN.

Plate 56. Fig. 3.

Character of the Species.

Gentiana nivalis.

The Stalk has alternate shoots; each bearing one funnel-shaped plaited Flower.

Fig. 3. *abc.*

THIS is an Annual, native of the mountains of Lapland, and other Northern countries; a Plant of four inches high, flowering in August. The Stalk is pale; the Leaves are of a faint green; the Flowers are pale blue.

12. EDGY GENTIAN.

Plate 56. Fig. 4.

Character of the Species.

Gentiana aquatica.

The Leaves have their edges brown and filmy: the Flowers are funnel-shaped, and deep indented.

Fig. 4. *abc.*

THIS is an Annual, native of the marshy grounds in Siberia; a Plant of six inches high, flowering in May. The Stalk is brown; the Leaves are of a good green, but have a filmy, brown, waved rim; the Flowers are blue.

13. FOLDED GENTIAN.

Plate 56. Fig. 5.

Character of the Species.

Gentiana utriculosa.

The Cups are swollen, folded and winged: the Flowers have five deep Segments which spread open.

Fig. 5. *abc.*

THIS is an Annual, native of the high grounds of Italy and Germany; a Plant of six inches high, flowering in August. The Stalk is hard and brown; the Leaves are of a fresh and fine green; the Flowers are blue.

14. GOLDEN GENTIAN.

Plate 56. Fig. 6.

Character of the Species.

Gentiana aurea.

The Flowers are cut into five long, slender, very sharp Segments; the Branches grow in pairs.

Fig. 6. *abc.*

THIS is an Annual, native of the Swedish and Lapland mountains; a Plant of five inches high, flowering in August. The Stalk is brown; the Leaves are of a faint green; the Flowers are yellow.

15. CUR-

2







Spiked Gentian



Centaurian Gentian



Whorly Gentian



Downy Gentian



Five flower'd Gentian

15. CENTAUREAN GENTIAN.

Plate 57. Fig. 1.

Character of the Species.

LESSER CENTAURY.
Gentiana Centaureum.

The Flowers are funnel-shaped, with five deep divisions; the Stalk branches in a forked manner.

Fig. 1. *a b.*

THIS is an Annual, native of our high and dry grounds; a Plant of eight inches high, flowering in August. The Stalk is pale; the Leaves are of a faint green; the Flowers are crimson. This Plant is an excellent stomachic bitter.

16. SPIKED GENTIAN.

Plate 57. Fig. 2.

Character of the Species.

Gentiana spicata.

The Flowers are funnel-shaped, with five dents; and they stand alternately without Footstalks.

Fig. 2. *a b.*

THIS is an Annual, native of the damp grassy grounds of Italy, and the South of France; a Plant of ten inches high, flowering in August. The Stalk is brownish; the Leaves are of a strong green; the Flowers are white.

17. WHORLY GENTIAN.

Plate 57. Fig. 3.

Character of the Species.

Gentiana verticillata.

The Stalk is single; the Flowers stand in clusters round the joints, and are funnel-shaped, with five Segments.

Fig. 3. *a b.*

THIS is a Biennial, native of America; a Plant of ten inches high, flowering in July. The Stalk is green, with brown ribs; the Leaves are of a bright and pleasant green; the Flowers are white.

18. FIVE-FLOWERED GENTIAN.

Plate 57. Fig. 4.

Character of the Species.

Gentiana quinqueflora.

The Leaves are oval, and embrace the Stalk; the Flowers are funnel-shaped, with five divisions, and grow by fives round the Stalk.

Fig. 4. *a b c.*

THIS is an Annual, native of Pennsylvania; a Plant of eight inches high, flowering in August. The Stalk is green; the Leaves are of a fine deep green; the Flowers are of a beautiful crimson.

19. DOWNY GENTIAN.

Plate 57. Fig. 5.

Character of the Species.

Gentiana amarella.

The Flowers have five expanded Segments, and are hairy within.

Fig. 5. *a b.*

THIS is an Annual, native of our pasture grounds; a Plant of six or eight inches high, flowering in August. The Stalks are brown; the Leaves are of a fresh and very fine green; the Flowers are very numerous, and of a beautiful blue with a cast of purple.

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Q

20. BEARDED

20. BEARDED GENTIAN.

Plate 58. Fig. 1.

Character of the Species.

Gentiana campestris.

The Flowers have only four Segments, and they are bearded in the throat.
Fig. 1. *a b.*

THIS is an Annual, native of dry pastures in most parts of Europe; a Plant of four inches high, flowering in April. The Stalk is pale; the Leaves are of a faint green; the Flowers are blue.

21. EYE-LASH'D GENTIAN.

Plate 58. Fig. 2.

Character of the Species.

Gentiana iliata.

The Flowers have four great expanded Segments, with long hairs at their edge.
Fig. 2. *a b.*

THIS is a Perennial, native of the Swiss mountains, as also of Canada and Japan; one of the universal Plants: it grows to six or seven inches high, and flowers in May. The Stalk is greenish; the Leaves are of a fine green; the Flowers are blue.

22. CLUSTERY GENTIAN.

Plate 58. Fig. 3.

Character of the Species.

Gentiana cruciata.

The Flowers stand in close clusters; they have four Segments and a naked throat.
Fig. 3. *a b c.*

THIS is a Perennial, native of the Swiss mountains, and many other parts of Europe; a Plant of eight inches high, flowering in June. The Stalk is brownish; the Leaves are of a delicate green; the Flowers are blue.

23. LOW GENTIAN.

Plate 58. Fig. 4.

Character of the Species.

Gentiana fœnalis.

The Leaves are oval; the Flowers are large, with four Segments, and scarce any Stalk.
Fig. 4. *a b.*

THIS is a Perennial, native of the mountains in Chili; a Plant of scarce two inches high, flowering in August. The Leaves are of a dark green; the Stalk is brownish; the Flowers are large, and of a fine yellow.

24. PERFOLIATE GENTIAN.

Plate 58. Fig. 5.

Character of the Species.

PERFOLIATE CENTAURY.

Gentiana perfoliata.

The Stalk runs thro' the Leaf; the Flower has eight Segments. Fig. 5. *a b.*

THIS is an Annual, native of our high grounds that have some moisture; a Plant of eight inches high, flowering in August. The Stalk is greenish; the Leaves are of a fresh green; the Flowers are yellow.

25. SILKY GENTIAN.

Plate 58. Fig. 6.

Character of the Species.

Gentiana filiformis.

The Flowers have four Segments, and are not bearded; the Stalk is very slender, soft, and splits forkwise. Fig. 6. *a b c.*

THIS is an Annual, native of France; a Plant of five inches high, flowering in August. The Stalk is pale; the Leaves are of a faint green; the Flowers are of a fine yellow.

5





26. NOBLE GENTIAN.

Plate 59. Fig. 1.

Character of the Species.

Gentiana exaltata.

The Flowers have five large expanded Segments dented at the edge, and they stand on long Footstalks which split forkwise.

Fig. 1. a b.

THIS is an Annual, native of America; a very elegant and noble Plant, though not exceeding five or six inches in height; it flowers in June. The Stalk is hard, slender, and brown; the Leaves are of a fresh green; the Flowers are large, and of a glorious blue; and are very numerous and very lasting.

27. FILMY GENTIAN.

Plate 59. Fig. 2.

Character of the Species.

Gentiana exacoides.

The Leaves are hearted; the Stalk splits forkwise; the Cups are edged with Films.

Fig. 2. a b c.

THIS is an Annual, native of the Cape of Good Hope; a Plant of four or five inches high, flowering in June. The Stalk is brown; the Leaves are of a very fine green; the Flowers are yellow.

28. LEAFLESS GENTIAN.

Plate 59. Fig. 3.

Character of the Species.

Gentiana aphylla.

The Stalk is naked: the Flower is cut into five flat Segments.

Fig. 3. a b.

THIS is a Biennial, native of America; a Plant of two inches and a half in height, flowering in May. The Leaves are of a pale green, with some tinge of brown; the Stalks are simple threads; the Flowers are blue.

29. FOUR-LEAVED GENTIAN.

Plate 59. Fig. 4.

Character of the Species.

Gentiana quadrifolia.

The Leaves grow four at a joint: the Flowers have eight obtuse Segments.

Fig. 4.

THIS is an Annual, native of Spain; a Plant of six inches high, flowering in August. The Stalk is brownish, and swells at the joints; the Leaves are of a dead green; the Flowers are yellow. This is supposed to be a mongrel Plant: we are but just acquainted with it; a season or two more will determine.

30. DEEP-CUT GENTIAN.

Plate 59. Fig. 5.

Character of the Species.

Gentiana Pensylvanica.

The Leaves are heart-shaped with a filmy edge: the Flowers have five long slender Segments.

Fig. 5. a b.

THIS is an Annual, native of Pennsylvania; a Plant of five inches high, flowering in August. The Stalk is brown and slender; the Leaves are of a deep green with a brown filmy edge; the Flowers are yellow.

G E N U S

G E N U S X X X .
F E L L W O R T .
S W E R T I A .

Plate 60.

Character of the Genus.

The Cup is of one piece, cut into five lanced Segments, which lie flat: the Flower has no tube, but is cut into five lanced Segments down almost to the base; and at the bottom of each Segment are two hollow glands surrounded with bristles: the Seed-vessel is oblong, and small at each end; it has many small Seeds in one cell.

Plate 60. *a b c d e*.

1. O V A L F E L L W O R T .

Plate 60. Fig. 1.

Character of the Species.

Swertia perennis.

The Leaves are oval; and the Flowers have five oval pointed Segments.

Fig. 1 *a b*.

THIS is a Perennial, native of the Swiss mountains; a Plant of ten inches high, flowering in August. The Stalk is brown; the Leaves are of a showy green; the Flowers are blue, dotted and streaked with black.

2. L I N E A R F E L L W O R T .

Plate 60. Fig. 2.

Character of the Species.

Swertia difformis.

The Leaves are linear; the top Flower has six Segments, the others five.

Fig. 2. *a b c*.

THIS is an Annual, native of Virginia; a Plant of eight inches high, flowering in July. The Stalk is of a pale green; the Leaves are of a pale but pleasing green; the Flowers are blue.

3. L A N C E D F E L L W O R T .

Plate 60. Fig. 3.

Character of the Species.

Swertia rotata.

The Leaves are narrow lanced: the Flowers have five lanced Segments with obtuse ends.

Fig. 3. *a b*.

This is an Annual, native of Siberia; a Plant of seven inches high, flowering in August. The Stalk is whitish; the Leaves are of a pale green; the Flowers are of a faint blue; sometimes yellow.

4. H O R N E D F E L L W O R T .

Plate 60. Fig. 4.

Character of the Species.

Swertia corniculata.

The Flowers have four Segments; and each has a gland with a spur below.

Fig. 4. *a b*.

THIS is an Annual, native of Canada; a Plant of five inches high, flowering in August. The Stalk is red; the Leaves are of a good green; the Flowers are yellow.

5. F O R K E D F E L L W O R T .

Plate 60. Fig. 5.

Character of the Species.

Swertia dichotoma.

The Stalk splits forkwise: the Flowers have four Segments without spurs.

THIS is an Annual, native of Siberia; a Plant of eight inches high, flowering in July. The Stalk is brown; the Leaves are pale; the Flowers are blue.

The End of the EIGHTH VOLUME.



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